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THE

EDINBURGH
MEDICAL AND SURGICAL
JOURNAL:

EXHIBITING

A CONCISE VIEW

OF THE LATEST AND MOST IMPORTANT

DISCOVERIES IN MEDICINE, SURGERY,
AND PHARMACY.

1806.

VOLUME SECOND.

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THE

EDINBURGH
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JANUARY 1. 1806.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Obſervations on the Formation and Structure of the Human Ovum.

By Mr JOHN BURNS, Lecturer on Midwifery in Glaſgow.

IT has been the opinion of all the anatomiſts who have written on the ſubject of the gravid uterus, that the vaſcular part of the ovum, or the membrana decidua, is originally formed from lymph or extravaſated blood. But the formation of organized animal matter is accompliſhed by a proceſs very different from the inſpiſſation of lymph, or the production of new veſſels through the medium of coagulated blood.

This opinion I have already controverted in my account of the gravid uterus, which was publiſhed in 1799. Since that time, I have had an opportunity of examining an additional number of uteri and abortions, in all the ſtages of advancement. By theſe means, and with my brother's aſſiſtance, I am able now to elucidate ſtill more the formation of the human ovum.

Very ſoon after conception, the vaſcular action of the uterus is conſiderably increaſed: its ſubſtance becomes ſofter, its ſize rather greater. The fibres are more ſeparated from each other, and a larger quantity of interſtitial fluid is formed. The cavity alſo enlarges a little, particularly in point of length, and the membrane which lines it ſeems to be ſomewhat ſofter and redder. The lacunæ at the os uteri are more diſtinct.

Next we find that, conſiderably within a month after impregnation, a number of veſſels ſhoot out from that part of the membrane which lines the fundus uteri. Theſe veſſels have ſomewhat the appearance of the down which proceeds from putrid fleſh. They are, however, of a different colour, thickly planted, and pretty cloſely united at their roots, but more ſeparated at their extremities; ſo that, when the uterus is put in water, this part of it has a flocculent appearance. They never exceed the twelfth part of an inch in length. By degrees, ſtill more of the uterine ſurface yields this vaſcular production, but it never is formed by the glandular part at the os uteri. This part ſecretes a jelly of a reddiſh colour, which is decompoſed, and eſcapes very ſoon after death. The ſurface, however, immediately above the lacunæ yields a thin vaſcular production, which ſtretches acroſs the uterus, and is evident as ſoon as the fundus has produced its down, whilſt the intervening body of the uterus has as yet formed none.

This vaſcular production forms the outer layer of the decidua. It has at firſt a ſtriated appearance, from the direction of the veſſels which go off at right angles to the uterine ſurface, which yields them. The ſtriæ are alternately white and red, or black, owing to the empty arteries and diſtended veins; but if the uterus has been injected, then they are altogether coloured. This ſtriated ſtructure of the outer layer of decidua ſeems, in the courſe of geſtation, to be deſtroyed chiefly by preſſure; for, by the end of the ſecond or the beginning of the third month, it has more of a laminated appearance.

I now go on to obſerve, that, almoſt immediately after this effloreſcence of veſſels proceeds from the uterus, (forming the outer layer of decidua, or what may, at this period, be called the decidua ſtriata), a ſecond ſet of veſſels is produced from the extremities of the firſt. Theſe veſſels are very different from the former, which are ſhort, ſtraight, and parallel to each other. Theſe, on the contrary, are more extended, intermix and ramify together, ſo as to form an irregular tiſſue or ſheet of vaſcula
ſubſtance, the fibres or veſſels of which aſſume a direction
right angles to the ſhag or primary veſſels which formed the
This direction is very naturally given by the weight of the veſ
themſelves, which makes them hang down, or point toward
os uteri. This production conſtitutes the internal layer of
decidua,–the decidua interna. It is much more irregular
the outer layer; many ragged flocculent proceſſes hang do
the cavity of the uterus, and extend toward the cervix;
this layer preſently appears to conſiſt of a number of to
ing membranes, like portions of ſpider's web, hanging pe

in the uterus; but nearer inſpection ſhows that there has been no laceration, the margin being ſmooth and well defined. Theſe I would call the proceſſes of the decidua interna.

Such is the ſtructure of the decidua externa and interna at three weeks or a month after impregnation, and at this period no fœtus is in the uterus. In one caſe, at this period, I detected the veſicular ovum in the tube; it was about half-way betwixt the two extremities, was rather ſmaller than a pea, and contained a little fluid. In another caſe I found it ſtill in the ovarium, covered by the fimbriated extremity of the tube. By puncturing the peritoneal coat of the gland, the veſicle eſcaped.

It has been the general opinion, ſince the time of Dr Hunter, that the decidua extended a little way up the tube, and, on his authority, I ſtated this to be the caſe in my former account. By careful examination I am convinced now that this is not the caſe: my brother even thought, from the diſſections, that the uterine extremity of the tube was leſs changed than any other part of it.

When the fœtus does deſcend into the womb, it is contained in a double membrane. The internal one is called the amnion, and poſſeſſes no diſtinct veſſels. The external is called chorion, and is very vaſcular on the outſide, inſomuch that theſe veſſels, forming a kind of ſhag, have by ſome been conſidered as a ſeparate tunic, under the name of ſpongy chorion. When this ovum reaches the uterus, it is evident, from what has been already ſaid, that it muſt be received into a vaſcular ſubſtance, which will form a ſmall chamber for it at the enterance of the tube, the ſides of which will be formed by the ſtriæ or parallel veſſels of the decidua externa, and the baſe by the decidua interna, which is ſtretched acroſs, and which, in proportion as the veſicular part of the ovum (by which I mean the chorion and amnion) increaſes, will be protruded before it, forming the decidua reflexa or protruſa, the hiſtory of which, as well as of the formation of the placenta, I have already given in my account formerly publiſhed, to which, for the ſake of brevity, I refer.

Whilſt theſe changes are going on, the body of the uterus begins alſo to form the decidual effloreſcence; for I have already mentioned that, until the fœtus comes into the uterus, the fundus alone forms the production; at the ſame time, the proceſſes of the decidua interna elongate ſtill more, and, together with thoſe which are produced in conſequence of the body of the uterus now forming decidua alſo, will come to fill up all the intervening ſpace betwixt the membranes or decidua reflexa, and the plug of jelly at the os uteri; or, to ſpeak more correctly, the vaſcular web, which I have noticed as ſtretching acroſs the cervix

cervix immediately above the lacunæ furniſhing the jelly; ſo that, by the end of the ſecond or beginning of the third month, the cavity of the uterus is completely filled; we have the ovum perfectly organized; we have the fœtus encloſed in its membranes, and ſuſpended in water; we have the placenta thick and well formed, and large in proportion to membranes; we have the decidua reflexa diſtinctly ſeen, and the lower part of the uterus filled with the two layers of decidua and the proceſſes of the internal one.

If, at this time, we take the ovum, compoſed of all theſe parts, out of the uterus, or cut off the face of the uterus, and remove the decidua from the front of the membranes, we ſhall ſee, at the upper part, the placenta and membranes like an old-faſhioned watch; the placenta reſembling the caſe of the watch, and the membranes the glaſs. Then, at the lower part of theſe membranes, we ſee the remains or margin of the decidua reflexa, which has been removed to ſhow the chorion; whilſt ſtill lower down we obſerve the decidua externa, and proceſſes of the interna filling up the lower part of the uterus, forming a kind of firm ſtalk to the globe above.

This ſtalk is thick, ſo as to occupy all the inferior part of the uterus; but the different layers and proceſſes furniſhed by the oppoſite ſides of the womb do not adhere together, when they meet in the centre or axis of the uterus; but we have always a ſmall canal or perforation leading up in the axis of the uterus from the gelatinous plug, or the membrane * covering it (to ſpeak correctly), to the bottom of the decidua reflexa or protruſa.

In proportion as the membranes enlarge, the decidua reflexa gradually protrudes down this canal, until at laſt it reaches the bottom; or, in other words, the membranes come to occupy all the uterus, and, in proportion as this takes place, the canal becomes ſhorter and more obliterated.

During all this time the uterus is gradually enlarging, the fundus removing farther from the mouth; and this enlargement goes on more rapidly at the upper than the under part, until at laſt we come to the glandular portion immediately above the os uteri, which diſtends very ſlowly and very little in proportion, and never forms decidua. It is therefore never attached to the ovum by veſſels, but only by jelly.

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* This membrane or fine web is most perceptible at an early stage, for ultimately it is blended with the jelly, and seems to be lost in it. This circumstance, I believe, made Dr Hunter suppose that the decidua did not stretch across the cervix uteri, but dipt down, and was lost in the jelly.

II.

On the Degree to which Exerciſe ſhould be carried in the Cure of ſome Varieties of Dyſpepſia. By A. B. FAULKNER, M. D. London.

THE happy effects which I have lately witneſſed to reſult from a proper management of exerciſe for the cure of dyſpepſia, induce me to think that an account of the caſe may claim ſome title to a place in this publication.

The particular object of this communication is to point out what has appeared to me an error of frequent occurrence reſpecting the *extent* to which exerciſe ſhould be employed for the cure of this diſeaſe; an error from which I am perſuaded the bad ſucceſs of our attempts to cure it is, in many inſtances, to be aſcribed.

The reader will doubtleſs be not a little ſurpriſed to find me recommending, with ſuch earneſtneſs, an article in the treatment of dyſpepſia ſo long approved of, and which has been ſo univerſally adopted. It occurs to me, however, that an overſight in the manner of its employment has not unfrequently obtained. The event of the following caſe has ſtrongly diſpoſed me to entertain this opinion. We know that inattentions ſeemingly very trivial in the exhibition of medicines have, in many inſtances, entirely defeated the purpoſes for which they may have been directed. So alſo it appears in no reſpect improbable, that an apparently trifling omiſſion in the regulation of exerciſe may have, in many caſes, defeated the object of its employment.

In the following ſketch of the progreſs and treatment of the caſe of my patient, thoſe ſymptoms and means of cure or alleviation alone ſhall be particularly noticed, which, as illuſtrating the object of this article, belong more immediately to my purpoſe to conſider.

A. B. from ſedentary habits, favoured perhaps by natural prediſpoſition, became affected with ſymptoms of dyſpepſia from his earlieſt boyhood. But although they were not unfrequently attended with conſiderable inconvenience, yet they were never ſo urgent as to preſs for the relief of medicine, until the 22d year of his age. At this very advanced period of the diſeaſe, a life of unuſual inactivity, and a more frequent and powerful application of cauſes, concurred to favour its progreſs. In conſequence, it became preſently accompanied by a train of very diſtinct and well-marked ſymptoms. Many of them, however, differed from thoſe which characterize the complaint in its ordinary form.

The caſe under conſideration was of that rarer variety which is diſtinguiſhed by increaſed appetency for food. This deviation in the functions of digeſtion from their ordinary ſtate in dyſpeptic caſes, muſt neceſſarily have had a great influence in modifying and changing the character of the other dependent ſymptoms. Food, inſtead of diminiſhing, augmented the inſatiate cravings of appetite, and acidity and coſtiveneſs were always produced in a degree proportionate to the quantity of food, of any kind, which was taken into the ſtomach. The body grew lean, the ſkin became dry, and the whole external appearance and caſt of countenance indicated great relaxation and exhauſtion. The whole body, but particularly the extremities, remained cold through the hotteſt ſeaſon of the year, notwithſtanding the regular quantum of exerciſe in which he daily perſevered. Connected with this ſtate of inaction of the ſyſtem, debility, liſtleſſneſs, and languor, prevailed to a great extent. The mind, from being naturally active, cheerful, and contented, became dull, gloomy, and unhappy; and to fill up the meaſure of his ſufferings, the patient was ever haunted by terrors of the moſt frightful complexion, threatening ſome impending calamity, or the approach of death itſelf; a ſtate of miſerable exiſtence from which it was in vain for him to attempt to eſcape by any effort of reaſon, or amuſive powers of ſociety or entertainment.

With reſpect to the treatment which was employed in the caſe I have ſketched, it would be equally an endleſs and an uſeleſs undertaking to ſpecify the various antidyſpeptic remedies which were exhibited. It will be ſufficient to ſtate, in a word, that every tonic, ſtimulant, bitter, abſorbent, or other ſtomachic, which had obtained any ſhare of credit for the cure or alleviation of dyſpepſia, were all fully and fairly tried, with not the ſlighteſt evident benefit. Nay, even exerciſe itſelf, which it is my purpoſe to ſet in a conſpicuous light of importance in the treatment of this obſtinate complaint, was enjoined and perſevered in for years with unremitted daily regularity, but without any evident advantage. Every means were now exhauſted which promiſed to afford relief, and the patient was in conſequence deprived of the only conſolation that remained, in the hopes with which they amuſed him, when an accidental occurrence unfolded the circumſtance from which the ill ſucceſs of thoſe various means had ariſen. A. B. was prevailed on, but without any view to health, by a friend who was exceedingly devoted to gymnaſtic amuſements, to be initiated in the very active and no leſs faſhionable and accompliſhed exerciſe of the broad-ſword. Amidſt the great variety of his athletic accompliſhments, this, being perhaps one of the leaſt ſevere, received my patient's approbation moſt readily, whoſe liſtleſſneſs and enfeebled ſyſtem were but ill calculated to ſupport any very violent exertion. To ſpeak in the phraſe of the ſcience, *to it* they went, and *at it* they kept for a good hour ever morning faſting, until maſter, as well as pupil, got a pretty well-warmed jacket. Nay, the pupil ſeemed to have odds in his favour here, as he was much *harder to ſweat* than his inſtructor. In the courſe of a very few days, not leſs to his joy than ſurpriſe, the invalid found himſelf free from almoſt all his dyſpeptic ailments, and his powers of digeſtion were now ſcarcely outdone by his abilities for conſuming food. The great diſlike which he bore at firſt againſt the fatigue of exertion was ſhortly overcome, and his depreſſed and occaſionally fluctuating ſpirits were elevated once more to their ordinary level of hilarity and ſteadineſs. Such a very ſpeedy and happy revolution in the patient's health readily pointed out the ſource from which it was derived; and as no other change had been made in his diet or regimen, nor any new plan adopted in the treatment of his complaint, thoſe good effects, which ſo ſpeedily and unexpectedly ſhowed themſelves, were, upon very fair and juſt grounds of reaſoning, aſcribed to the active nature of the exerciſe which he had lately undertaken. He always found it exceedingly difficult to bring out a ſweat; but, when this was effected, his averſion for the fatigue was changed into pleaſure and entertainment, and he ſat down to breakfaſt with an appetite as much diminiſhed as his powers of digeſtion were refitted for their office. But he likewiſe found, that if ſweating had not been previouſly induced, as ſometimes happened when the rounds of fencing were ſhorter than uſual, his digeſtive organs were not at all aided by the exerciſe he had taken. Thus we have a ſatisfactory explanation why the cuſtomary ſtated exerciſe, which my patient had been for ſo long a time in the habit of taking with unremitted regularity, was not attended with the happy conſequences which it was deſigned to ſecure. He had altogether overlooked how eſſential and indiſpenſable ſweating was to enſure its effects, without which, exerciſe brings little elſe with it than fatigue, and averſion to its repetition. The very reverſe of this takes place when it has been employed to the extent of inducing perſpiration. Beſides, there is very generally preſent in dyſpeptics, along with liſtleſſneſs and exhauſtion, two powerful enemies to the proper employment of exerciſe, an unconquerable dryneſs of the ſkin, which renders it extremely difficult to elicit perſpiration, when exerciſe is enjoined, as it is almoſt in every inſtance, to dyſpeptic perſons. I know it is generally directed in the unfortunate terms of regular moderate exerciſe; practitioners, in my opinion, attaching too great importance to the caution of not fatiguing their patients. Hence it invariably almoſt happens that it is never puſhed to its proper extent, never exhibited in a proper doſe; a circumſtance of as much conſequence here as in the exhibition of medicines. To unfold this error has been the purpoſe for which I have treſpaſſed ſo much on the patience of my reader, whoſe indulgence I muſt neceſſarily ſolicit.

Since the above was written, ſome conſiderable time ago, I have been enabled, by experiments repeatedly and cautiouſly inſtituted, to aſcertain that a few minutes only of exerciſe, conducted ſo as induce perſpiration, have enabled a dyſpeptic perſon to digeſt a quantity of food which a whole day of his accuſtomed ſluggiſh exerciſe was inſufficient for. It was neceſſary, however, to employ the exerciſe juſt before eating. I hold it, therefore, as a circumſtance of indiſpenſable conſequence in the treatment of dyſpepſia that exerciſe be employed to the extent of promoting a free and copious perſpiration; and I conceive that the leſs violent the exertions are for this purpoſe, the effects will be the more happy and permanent. It ſhould be an object of the firſt conſequence, in the treatment of this diſeaſe, to derive to the ſkin in thoſe caſes where dryneſs of the cuticle oppoſes this derivation. In ſuch caſes, thoſe means which have been termed indirect are the only ones upon which any perfect confidence can be placed. The exhibition of medicines, and the regulations of diet, in ſuch caſes, ought to be regarded only as auxiliary and co-operative.

It has long been obſerved, that there ſubſiſts a very remarkable ſympathy between the ſtomach and ſurface of the body. There is ſcarcely an aphoriſm in medicine more hackneyed. It ſeems, therefore, extraordinary that it ſhould not be more attended to in the treatment of the diſeaſe I have been conſidering. Since it is our great object to effect a change in the functions of depraved digeſtion, when the cure of dyſpepſia is undertaken, one obvious method of effecting this, according to the principle I have alluded to, is to produce a change in the ſurface. But this does not ſeem to be accompliſhed by exerciſe, except by inducing its perſpiring condition.

Finſbury Place, Sept. 1805.

III.

Letter on the Uſe of Sulphurated Hydrogen in Stomachic Complaints.

By Mr William Forbes, Surgeon, Peterhead.

Gentlemen,

I wish, through the medium of your valuable publication, to recommend to the attention of practitioners a medicine which I take to be much ſeldomer employed than it deſerves to be; I mean the ſulphuret of potaſh. It is a remedy which will be found particularly ſerviceable in diſorders of the ſtomach, whether acute or chronic, and, of conſequence, in other diſeaſes proceeding from a diſordered ſtate of that organ. The doſe is from a few grains to half a drachm, to be taken diſſolved in milk, water, or beer. If this do not relieve in a ſhort time, the medicine ought to be repeated; for a ſmall quantity will often fail, when a larger doſe will ſucceed. A little volatile alkali forms an excellent addition to it, and conceals the diſagreeable ſmell of the ſulphuret. When the ſtomach is in ſuch a condition as not eaſily to bear the taking of cold liquids, the medicine may be advantageouſly diſſolved in warm water.

Sulphurated hydrogen and the ſimple ſulphuret are known to be the beſt remedies for the mineral poiſons, and, when employed for this purpoſe, they are very uſefully given along with opium and milk, &c.

If ſulphurated hydrogen be preferred to the ſulphuret, and it is, no doubt, in ſome reſpects preferable, it may eaſily be obtained, by adding to the ſulphuret, diſſolved in water, a quantity of ſulphuric or muriatic acid ſufficient to ſaturate it. If this be kept for ſome days in a veſſel perfectly full and cloſe, the precipitated ſulphur ſubſides, and we obtain the gas combined with the water, along with ſome ſulphate or muriate of potaſh. Thus an artificial water impregnated with ſulphurated hydrogen, analogous to the natural ſulphureous waters, is eaſily obtained. Care ſhould be taken not to add the precipitating acid to exceſs, otherwiſe the water becomes diſagreeably bitter. This, however, might be corrected by adding ſome alkaline carbonate, which would alſo diſengage a portion of carbonic acid. A pound of ſulphuret is ſufficient for ten gallons of water.

Of all the alkalis, the volatile is the only one in common uſe; the ſulphurets are ſcarcely ever uſed, and ſulphurated hydrogen only when afforded by nature; yet I have no doubt that the more general and free uſe of it in remedies, eſpecially of the ſulphureous ones, would be found highly beneficial in fever, diarrhœa, and many other ordinary diſeaſes, acute as well as chronic.

Peterhead, 14*th September*, 1805.

IV.

Account of Dr Rouſſeau's Experiments on Cutaneous Abſorption.

By J. G. Stock, M. D. Briſtol.

Gentlemen,

I have peruſed, with much intereſt, Dr Kellie's paper on the functions of the ſkin, in the ſecond Number of your Journal. If you think the following abſtract of ſome experiments on abſorption worthy a place in your next Number, it is much at your ſervice. They are contained in an inaugural eſſay on that ſubject, written by Dr Rouſſeau, a native of St Domingo, who graduated in the univerſity of Pennſylvania in the year 1800. They appear ſtrongly to militate againſt cutaneous abſorption, and to render it probable that even the moſt active ſubſtances do not affect the ſyſtem through that medium, unleſs the cuticle be previouſly in ſome degree deſtroyed or abraded. I do not pretend, however, to decide upon the queſtion myſelf, but offer the ſubſequent facts to you as a valuable appendix to Dr Kellie's paper. I remain, &c. J. G. Stock.

The Doctor begins his eſſay with a brief ſtatement of his objections to the commonly received doctrine of cutaneous abſorption. He attempts to account for the apparent abſorption of mercury, by friction upon the external ſurface, in the following manner: "Were the mercury abſorbed in friction, it would certainly, after a long uſe, be found in ſome parts of the body; but I have never been able to diſcover any marks of the preſence of mercury in the urine, milk, or other fluids of animals, upon whom it had not been ſpared."

From ſeveral experiments, which are not yet ſufficient to enable me to ſay any thing poſitive upon this ſubject, I am induced to believe, that mercury being a ſubſtance volatile enough to be capable of riſing and diffuſing emanations by a moderate degree of heat, (as has been proved by Mr Achard's experiments),

experiments [*]), it may, with the aſſiſtance of the heat of the body of thoſe uſing the frictions, be raiſed in very minute particles, as muſk, camphor, ſpirit of turpentine, garlic, and others, and abſorbed in the ſame manner as theſe volatile ſubſtances are. May it not be ſuppoſed alſo, that, during the frictions, ſome of the mercury is, by the action of the air, aſſiſted by the heat of the body, oxided, that it afterwards parts by degrees with its oxygen, which carries along with it to the lungs (which, I am to prove, are the organs performing abſorption) ſome parts of the mercury, which is with difficulty ſeparated from it? [†]

He goes on to obſerve, that, "From all the facts and obſervations that he has been able to collect from others, as well as from his own obſervations and inquiries, he had never been able to determine the abſorption of any ſubſtance by the lymphatics; on the contrary, that every experiment which he had made, with the view to come at ſuch diſcovery, had convinced him that the lungs are the only organs by which abſorption is performed. He admits that various active ſubſtances may be introduced *under* the cuticle; but this, he ſays, "cannot certainly be called abſorption. In ſuch caſes the virus is carried on by the circulating fluid with which it has been mixed. Anatomiſts diſſect putrid bodies with perfect ſafety, and no noxious matter is abſorbed by their hands, as long as the cuticle is not injured. Would not ſurgeons be expoſed every day to the moſt dangerous conſequences, if the matter of venereal and gangrenous ulcers could be abſorbed by the entire ſkin? Even the venom of the viper may be laid upon the ſkin without any accident enſuing."

The above is a very ſuperficial abſtract of the Doctor's opinions. I haſten to the experimental part of his eſſay, which contains many ſtriking facts in ſupport of them. The ſubſtance made uſe of in them was the ſpirit of turpentine. The teſt of its introduction into the ſyſtem was the violet ſmell imparted to the urine; and with a view to accelerate its ſecretion, in a majority of his experiments, he took a few grains of the nitrate of potaſh.

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[*] This gentleman, having left a dish containing twenty pounds of mercury over a furnace which was daily heated, after some days experienced a salivation, as did two other persons who had not quitted the room. This heat he estimates to be about 72° of Fahrenheit.—*Journal de Physique, Octobre* 1782.

One of the professors of this university (Pennsylvania) experienced a similar effect in his own person, in consequence of being repeatedly in a close room with a patient under a profuse salivation from mercurial frictions. And two others have noticed a similar effect to have been produced upon persons who resided in a ward in the Pennsylvania hospital, where mercurial friction was administered to several patients.

[†] Oxygenous gas, obtained from the mercurial oxides, almost always holds a small quantity of mercury in solution. I have been a witness to its having produced a speedy salivation on two persons who used it for disorders of the lungs.

Chaptal's Chemistry.

In the firſt experiment he took a few drops of ſpiritus terebinthinæ on ſugar with water. In the ſecond he expoſed himſelf to its exhalations only, by walking backwards and forwards in a cloſe room, after pouring ſome of it from a phial into an open bowl, during the ſpace of half an hour. The violet ſmell was perceptible in the urine in both theſe caſes, and to an equal degree.

In his third experiment, he provided a long tube communicating with the air of another apartment. Through this he breathed, while he remained expoſed to ſimilar exhalations, as in the ſecond experiment, for the ſpace of two hours. At the expiration of this period, he changed all his clothes, and withdrew to another apartment. No violet ſmell could be detected, although his urine was carefully examined for upwards of twenty-four hours.

In his fourth experiment, he introduced his right arm, about 10 A. M. into a large glaſs jar, with a phial of turpentine in his hand. The jar was then luted round his arm; he uncorked the phial, and immerſed his fingers and thumb into the fluid, while the whole arm was expoſed, without covering, to its exhalations. At the end of an hour, his urine began to be plentifully ſecreted in conſequence of his draughts of nitrate of potaſh; no violet ſmell was perceptible. He continued his arm and hand in this ſituation during the ſpace of three hours; at the expiration of which period, great pain and redneſs induced him to withdraw. While this was doing, he breathed through the tube, as in experiment third; his arm was waſhed, and he withdrew to another apartment. No violet ſmell was detected at any future period; though the urine was examined during the whole of the day and ſucceeding night. The inflammation of the finger laſted during the whole day, but went off in the night.

In a fifth experiment, he previouſly took his diuretic draught, and then breathing through his tube, as in the two preceding experiments, an aſſiſtant applied ſpirit of turpentine, by means of a ſpunge, to the whole of his naked body, during the ſpace of an hour. During this interval the urine was evacuated three times, but without any violet ſmell. This experiment the author deſcribes as a very painful one, or he ſhould have perſiſted in it for a longer time. He concludes his hiſtory of it with ſome cautions to any who may have the curioſity to repeat it, with reſpect to the careful excluſion of the exhalations of the turpentine,

pentine, by ſtopping the noſe, and adjuſting the mouth-piece of the tube with accuracy.

An interval of a few days took place between each of the experiments above related. The violet ſmell was perceptible in the firſt and ſecond within an hour.

After a ſhort interval, he began a ſecond ſeries of experiments with analogous reſults; the former ſet being, as he obſerves, deſigned to diſprove the idea of abſorption by the cuticle; the ſecond to eſtabliſh the performance of this function by the lungs.

About twelve o'clock on a windy day, he took a narrow-necked bottle, containing ſpirit of turpentine, and, applying his noſe to the opening, inſpired twelve times, and then put the bottle by, and left the room. He took a walk in the ſtreet, and, in an hour and a half afterwards, the ſmell of the turpentine was perceptible in his breath to his friends. On his firſt making water after this experiment, which was at the expiration of an hour, it imparted a ſtrong violet ſmell, and gave a ſimilar teſt every time it was evacuated, till he went to bed. The ſmell was retained for twenty-four hours.

He adds, that he has detected ſimilar effects, after being preſent at ſome chemical experiments, in which ſpirit of turpentine was inflamed.

In his ſecond experiment, being deſirous to aſcertain how little of the turpentine was neceſſary to produce a ſenſible effect upon the ſyſtem, he emptied his lungs by a long expiration, and inhaled once the emanation of ſpirit of turpentine. In the ſpace of half an hour, the urine was very ſenſibly impregnated with the ſmell of violets, and retained it for three or four hours. The author obſerves, that the reſult of this experiment ſhows how very cautious the experimenter ought to be in performing the experiments in which the organs of reſpiration are to have any ſhare; becauſe, if the ſmell of the turpentine have once reached the noſe, it is ſufficient to render the whole experiment fallacious.

In a third, he made uſe of the long tube already ſpoken of, and inhaled the emanation of the turpentine from a glaſs jar, ſet at ſuch a diſtance that none could reach him where he ſtood, except through the medium of the tube. The urine imparted a violet ſmell within half an hour, which might be diſcovered in every part of the room where he was, and continued as long as in his former experiments.

" I could adduce," ſays the author, " a number of other experiments made with muſk, garlic, and camphor, yielding all the ſame reſults, to reinforce all that I have ſaid upon the abſorption of the ſpirit of turpentine; but as the ſmall limits of a diſſertation will not permit ſo extenſive an undertaking, I have preferred the ſpirit of turpentine for the ſubject of my experiments in the preſent diſſertation; and I would recommend it to thoſe who would faithfully repeat the ſame experiments, on account of its certain characteriſtic property of imparting a ſtrong ſmell of violets to the urine, whenever and howſoever it is received in the body. Such a ſmell cannot leave any doubt of its preſence in the ſyſtem, as ſoon as it has been perceived; while, on the other hand, the proofs given by other volatile ſubſtances of their exiſtence in the body are often fallacious, and may eaſily elude obſervation.

V.

Analyſis of a Stearoid Tumour. By JOHN BOSTOCK, M. D. Liverpool.

I WAS requeſted by Mr Mather of this place to examine the contents of a tumour which he had removed from the forehead of a young man of about 18 years of age. It made its appearance ſoon after birth, and gradually increaſed until it arrived at the ſize of a walnut. Upon opening the ſac, the contents ſeemed to have no attachment to it, but were expreſſed from it without difficulty. They were not interſected by any membranes, nor did they appear in any degree vaſcular or organized.

The ſubſtance itſelf was of the conſiſtence and colour of butter, and appeared homogeneous, and uniform in its texture; by means, however, of a microſcope, a ſlight tendency to granulation might be detected. It was liquified by the application of a moderate degree of heat, and, by increaſing the temperature, it was conſumed, the combuſtion being attended with a ſucceſſion of exploſions. A portion was expoſed to the action of cauſtic potaſh, but no effect was produced at the temperature of the atmoſphere: upon keeping it for ſome time at the boiling heat the ſubſtance was broken down, and diffuſed through the fluid, but, upon cooling, very nearly the whole of it ſubſided. There did not appear to be any of that ſaponaceous emulſion formed, ſuch as is uſually produced by the action of potaſh upon an adipoſe ſubſtance. Portions of this alkaline liquor were ſucceſſively neutralized by the ſulphuric, nitric, and acetous acids; but there was ſcarcely any precipitate thrown down, nor was there any change of colour in the fluid indicating that the potaſh contained any of the fatty matter in ſolution. Exactly ſimilar effects were produced by treating the ſubſtance with pure ammonia; it appeared that ſcarcely any portion of it was diſſolved.

It was in ſome degree acted on by boiling alcohol; a precipitate was thrown down by the addition of water; a little was depoſited as the alcohol cooled, and ſtill more by its evaporation: the matter depoſited did not exhibit any tendency to cryſtallization.

No effect was produced upon the ſubſtance by keeping it immerſed for ſome time in boiling oil of turpentine, nor was it diſſolved when ſuſpended in the vapour of this fluid; it merely became ſoftened, and aſſumed a reddiſh brown hue. It was diſſolved by boiling ether, though ſparingly; when the ethereal ſolution was added to water, the ſubſtance was inſtantly ſeparated in the form of an oily film, which ſwam on the ſurface of the fluid, and the evaporation of the ether alſo left behind a layer of fatty matter.

When the ſubſtance was boiled for ſome time in ſulphuric acid, the fluid was rendered of a dark brown colour, while the fatty matter ſwam at the top in the form of black globules. After the acid became cool, it was paſſed through a filter, and the globules were retained on the paper, exhibiting a black, ſhining appearance, and pitchy conſiſtence, much reſembling the bitumen occaſionally mixed with pitcoal. Scarcely any precipitate was formed by the addition of an alkali to the ſulphuric acid. The pitchy matter tinged boiling alcohol of a deep brown colour, but did not appear to be properly ſoluble in it.

When the fatty matter was boiled in nitric acid, the fluid was tinged of a golden hue, while the ſubſtance was converted into a maſs of a deep yellow colour, and ſomewhat waxy conſiſtence. The acid did not appear to hold any of it in ſolution. The yellow maſs was boiled in alcohol; it tinged it of a light brown hue, and was ſparingly diſſolved, as was evident from the precipitation produced by the addition of water, and the depoſit formed by evaporation.

The reſults of theſe experiments indicated that the ſubſtance, though forming what is uſually called a fatty tumour, and certainly much reſembling fat in external appearance, yet differed from it eſſentially in its chemical properties. As far as my information extends, it indeed differs from every other animal ſubſtance which has hitherto been ſubmitted to chemical analyſis. It neither reſembles fat, cellular ſubſtance, the muſcular fibre, medullary matter, jelly, nor adipo-cire. I was not poſſeſſed of a ſufficient quantity of it to examine the products of its combuſtion, which would perhaps have thrown ſome light upon its chemical compoſition. I am induced to conjecture, that it is principally compoſed of carbonaceous matter, a circumſtance which I infer, both from its general intractability, and more particularly from the effect produced on it by the ſulphuric acid. It may be neceſſary to add, that the experiment with potaſh was repeated with different ſpecimens of this reagent, until I could no longer doubt of its accuracy; the reſult appeared to me ſo ſingular, that I ſuſpected ſome imperfection in the alkali which I employed in the firſt trial.

Though the inferences that can be deduced from theſe experiments are almoſt entirely negative, ſtill, I apprehend, you may think the facts worth recording in your Journal, as giving an account of the chemical properties of an animal ſubſtance hitherto unexamined, and particularly as they point out that the name by which tumours, ſimilar to the one under conſideration, have been deſignated, is altogether unappropriate*.

I am your obedient ſervant,

JOHN BOSTOCK.

Liverpool, Auguſt 20. 1805.

VI.

The Hiſtory of a Caſe of Diabetes Mellitus ſucceſsfully treated. By HENRY FRASER, M. D. London.

GENTLEMEN,

A FAVOURABLE termination of the diabetes mellitus being rather a rare occurrence, I am induced to offer the following caſe for inſertion in your valuable Journal; you will therefore have the goodneſs to publiſh it, if you think it worthy. It is not my intention to enter into any diſcuſſion of the theory of diabetes, but merely to give a brief narrative of this caſe, and the remedies effectually employed for its cure.

Mr M——e, a wine-merchant, between 60 and 70 years of age, reſident about 30 miles weſt of this metropolis, became the ſubject of diabetes in the autumn of 1804. Although he had been always in the habit of indulging without reſerve in the luxuries of life, yet there was no evident diſeaſe of the liver; he had, however, been occaſionally afflicted with the gout, the two laſt regular paroxyſms of which, in the latter end of the year 1803, were removed by the refrigerative plan of treatment ſo zealouſly recommended by the ingenious Dr Kinglake. Since that period, he has experienced no return of the gout, nor has he, to uſe his own words, enjoyed one day's perfect health.

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* If it be thought necessary to invent a term for them, we may, according to the custom observed on similar occasions, call them *stearoid tumours*.

Whether this circumſtance could have any ſhare in producing the diſeaſe in queſtion, is not for me to determine; for I have no ambition to become a controvertiſt on a ſubject where illiberality and invective have long ſince uſurped the place of logic and reaſon.

As ſoon as the nature of his complaint was aſcertained, the well-known fatality of it alarmed both himſelf and his friends, and the advice of a ſkilful ſurgeon was immediately obtained. Under the management of this gentleman, the patient took moſt, if not all, of the remedies uſually reſorted to upon ſuch occaſions, but without being enabled to arreſt the progreſs of the diſeaſe; for, in ſpite of the combined efforts of ſkill and attention, the complaint rapidly gained ground. He conſulted me on the 15th of January 1805. Upon examination, I found him labouring under a confirmed diabetes. His urine was perfectly ſweet to the taſte, entirely clear, and generally colourleſs, ſometimes, however, tinged with a yellowiſh green. As he was in the habit of frequently meaſuring the quantity of urine diſcharged in the courſe of the twenty-four hours, we were enabled to aſcertain it with correctneſs, and, at this period of the diſorder, it was found to average from twelve to fourteen pints. His thirſt was inſatiable; but he had no appetite for ſolid food, and the body was become greatly emaciated. His tongue was conſtantly coated with a thick brown-coloured fur, and very dry. He alſo complained of an obtuſe pain in the lumbar region, and of great proſtration of ſtrength. His pulſe was very irregular, having a remarkable intermiſſion about every fifth ſtroke; the frequency of the pulſations but ſeldom exceeded eighty-four in a minute. He had alſo at this time nocturnal pains in his feet and knees, ſomewhat reſembling gout, which he was adviſed by all means to encourage by the uſe of a topical warm bath, in which a conſiderable quantity of the flour of muſtard had been previouſly diſſolved. This pediluvium did not obtain the deſired effect; nor were other means, employed with the ſame intent, more efficient.

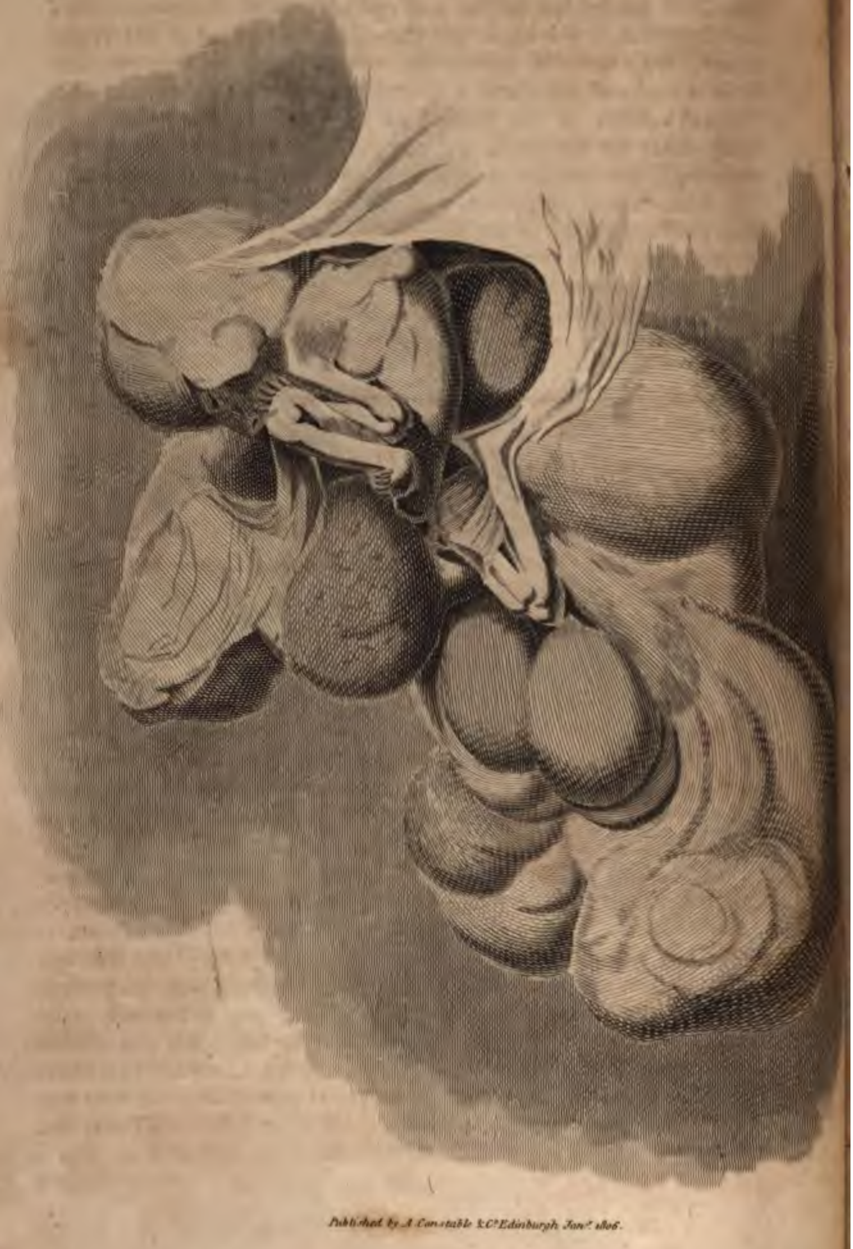
When I conſidered the general fatality of this complaint, and revolved the opinion of my learned friend Dr Willan, whoſe ſoundneſs of judgment is equalled only by the ſedulous attention he has uniformly paid to the phenomena of diſeaſes, "That all confirmed caſes of diabetes are attended with ſome conſiderable diſorder of the conſtitution, or a defect of ſome organ eſſential to life," my hope of ſeeing this patient recover was very faint. As it was impoſſible to reſtrain him from the uſe of liquids, I recommended him to drink old bottled porter, and laid no reſtriction upon his diet, except forbearance from vegetables. I preſcribed for him a draught, containing half an ounce of the acetite of ammonia, twenty drops of tartarized antimonial wine, and thirty drops of laudanum, in the camphorated mixture of the London Pharmacopœia, which was ordered to be taken every third night, the aſtringent effect of the opium being carefully obviated by a gentle laxative. This draught was ſoon diſcontinued. He was alſo directed to uſe a chalybeate medicine, prepared according to the formula recommended by the late Dr Griffiths, beginning with a doſe of two grains of the ferrum vitriolatum, and gradually increaſing it to five grains. After he had ſteadily purſued this plan for more than a month, I was informed, by letter, of his gradual amendment, although he was ſtill conſidered to be in a very precarious ſtate; the taſte of the urine was changed from ſweetneſs to inſipidity; the quantity diſcharged was diminiſhed; the patient's appetite was improved, and he thought himſelf ſtronger. On the 25th of February, I again ſaw the patient, who was now frequently haraſſed by ſymptoms analogous to thoſe which have been regarded by authors as pathognomic of the angina pectoris, or, according to Dr Parry, ſyncope anginoſa. Theſe diſtreſſing ſymptoms were, however, fortunately ſoon relieved by a combination of camphor, caſtor, and æther, given in conſiderable quantities, and did not return during the further progreſs of the diſeaſe.

It was now deemed prudent to ſubſtitute another tonic for the ſteel, leſt, by too long continuance, it ſhould become at laſt uſeleſs, if not noxious; a property I have more frequently obſerved to follow the uſe of this medicine, for an immoderate length of time, than any other article in the materia medica. At this time, the yellow bark, in union with the ſulphuric acid, was preſcribed, in the doſe of one drachm of the powder, two drachms of the compound tincture, and twenty drops of the diluted acid. The diſeaſe now began to yield more ſpeedily, and, at the expiration of two months from the commencement of the uſe of the bark, no trace of diabetes was to be found.

On the 12th of Auguſt, I was again conſulted by this gentleman, on account of an aphthous ſore throat, which, for ſeveral days, was ſo ſevere as to threaten his life; at this time, his former diſeaſe manifeſted no diſpoſition to return; and having, ſince his recovery from the latter complaint, ſpent a month amidſt the gaieties of Cheltenham, he now enjoys good health and ſpirits.

Plate 6. Edinb. Med. Journal.

M. GRIVEL'S CASE.



Published by A. Constable & C.o Edinburgh Jan.y 1806.

I had frequent converſations on this caſe with my late much-lamented friend and tutor, Dr Woodville, who approved of this plan of treatment; his medical ſcience was ſurpaſſed by none, equalled but by few of the many phyſicians of this metropolis; and his various merits, to uſe the elegant language of Mr Highmore, the trump of eulogy can never tarniſh by exaggeration. It is a national loſs, and a matter of univerſal regret, that his ſecond volume of the Hiſtory of Inoculation, which has been long ready for the preſs, was not publiſhed before his death; for although the vaccine inoculation, introduced by the ingenious Dr Jenner, and ſupported, and in a great meaſure eſtabliſhed, by the zeal and ability of Dr Woodville, may eventually entirely ſuperſede variolous inoculation (an occurrence which unfortunately it is more reaſonable to wiſh for than to expect at preſent), ſtill the importance of its contents would render it a valuable acquiſition to the library of every natural philoſopher.

VII.

An Account of a Fœtus found in the Abdomen of a Woman 83 *years of age.* By J. Grivel, Accoucheur in the Hoſpital of Villeneuve at Dreſden, as communicated in the following Letter to Dr Pearſon, Leiceſter-Square.

Sir,

I take the liberty of addreſſing to you a few lines, to deſire you to accept the two drawings which I have ſent, done as faithfully as my poor talent in the art enables me. You muſt know that we are in no want of bodies at Dreſden, having, beſides thoſe of the hoſpital, all thoſe of murderers and ſuicides. We lately received the body of Maria Walther, born at Meiſſen, widow of a Pruſſian huſſar, who had attended in ſeveral campaigns in the capacity of a ſutler to Frederic II. King of Pruſſia's army. She has been kept in the Lazarus hoſpital ſince 1794 through charity, on account of her great age only, being in perfect health, and having never complained of any pain in the belly. She talked of nothing but of the wars in her former days, and aſſiſted as a nurſe to the ſick in the Lazarus hoſpital till within two hours of her death. On opening her body, the young ſurgeon who was employed was ſurpriſed to find a child in an indurated ſtate, and blended, as it were, with the inteſtines. It appeared as repreſented in the drawing, No. 1. A more diſtinct view appeared after waſhing the parts, and as repreſented in the drawing, No. 2. (See plate, No. 1.) We conſider this as a moſt rare caſe, the woman being 83 *years of age*, as was proved by an extract of her baptiſm. I wiſhed much to have purchaſed for you the original; but I was unable, it being reſerved for the cabinet of the Elector. I have the honour of recommending myſelf to your protection, and of being your very humble ſervant,

J. Grivel.

P. S. We have a girl (*une fille nine**) now in the hoſpital, who is much deformed, and far advanced in pregnancy. Her pelvis is not two inches, Engliſh, wide. We ſhall be obliged to perform the Cæſarean operation. This is the ſecond of this deſcription which we have had at the hoſpital within theſe 18 months.

Dreſden, June 28. 1805.

REMARKS.

1. Although the above ſtatement by no means contains a relation of many particulars, which a well-informed perſon would deſire, and although, from the want of a more full account, it will be impoſſible to make many inferences, which otherwiſe could have been eſtabliſhed, there is no juſt reaſon to queſtion the fact that a fœtus † was found in the abdomen as deſcribed.

2. I have heard, within the laſt ſix months, of three ſimilar caſes, viz. one which fell under the obſervation of a very experienced phyſician of the firſt reputation in Glouceſterſhire. I have been favoured with a ſight of the drawings of this caſe, and I know it is deſtined for publication: it will, there is no doubt, be given very correctly, and will contain a minute hiſtory of all the particulars belonging to ſo extraordinary an occurrence. A ſecond inſtance of the ſame ſort fell under the obſervation of a phyſician at Glaſgow; and, as I was informed by a young phyſician, my pupil, in Edinburgh, it was ſo ſimilar to the Glouceſterſhire caſe, that, while I was relating it in a lecture the laſt winter, he ſuppoſed it was the ſame as that with which he was acquainted at Glaſgow. A third inſtance was communicated to me yeſterday at Woolwich by Dr Rollo: it occurred in Ireland, of which an account had been ſeen a few days ago in a letter.

3. Even if I had leiſure, I ſhould not be diſpoſed to make a

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* *Nine* is not a claſsical word in the French language, in which the letter was written, but we underſtand it to be a cant term uſed in ſome hoſpitals on the Continent for thoſe caſes of deformity in the female in which parturition muſt be difficult, if not impoſſible.—*Editors.*

† It is ſuppoſed to have been five months old before it eſcaped from the uterus.

number of remarks, and endeavour to explain the nature of theſe occurrences, there being ſo many profeſſional men better qualified. However, one queſtion I ſhall venture to propoſe, in order to obtain from others a ſatisfactory explanation. What are the powers or circumſtances which prevent the fœtus from undergoing the compoſitions and decompoſitions uſual in the proceſs of putrefaction? Three different reaſons may be aſſigned.

1. That the fœtus is in a dead ſtate; but the excluſion of air containing oxygen gas is the circumſtance which prevents putrefaction.

2. That the fœtus is in a dead ſtate; but the agency of living ſurfaces in contact with it counteracts the putrefactive proceſs.

3. That the vitality of the fœtus is not extinguiſhed, although the mode of agency of the principle of life is different from what is uſual.

The firſt ſuppoſition does not appear to me ſatisfactory, becauſe air certainly does permeate through every part of the animal economy; and it is common for dead animal matter to become putrid in many cavities to which air has not a more free acceſs than into the cavity of the abdomen. Alſo, out of the animal-body, we know that animal fluids, kept in glaſs veſſels quite full, and hermetically ſealed, afford new compoſitions by the play of chemical attraction.

The ſecond ſuppoſition may, perhaps, be thought not altogether improbable, being ſupported by analogy. So the fluid in dropſies, and in many other diſeaſes, remains for months, and even years, in cavities, without alteration in its compoſition, ſeemingly owing to its being in contact with living matter. Generally, however, when lifeleſs animal matter is expoſed to living ſurfaces, and confined ſo as to be much excluded from the air, it is either abſorbed, or it excites the formation of pus, or it putrefies. The late Mr Pierce Smith, my moſt ingenious pupil, wrote a paper, which was read at the Royal Society about the year 1795, containing many experiments to ſhow, that when fleſh of various ſorts was inſerted into the cavities of wounds purpoſely inflicted, it was abſorbed, if in a certain quantity, and if the animal was in vigorous health; but if the quantity was too great, then purulent matter was formed, and, in ſome caſes, the fleſh introduced became putrid.

The third ſuppoſition, viz. that vitality remains, appears moſt reaſonable, becauſe certain actions go on, which produce changes only known in living bodies; ſuch as the oſſification of a great part of the fœtus; the proceſs of induration; the thickening of parts, and perhaps adheſion, from the communication of new veſſels between the confined extraneous body, and the cavity in which it is contained.

VIII.

Remarkable Caſe of an Oſſified Fœtus and Uterus in a Woman 60 years of age. By JOHN CALDWELL, M. D. Preland, Londonderry.

MRS MARY DELAP, aged 60, a woman of good character, on the 17th day of June 1805, four months after the death of her huſband, to whom ſhe had been married 26 years, complained, without any known cauſe, of great pain and uneaſineſs in her abdomen and pelvis, with obſtinate coſtiveneſs, and difficulty of paſſing her urine, for which ſhe took a gentle purgative without any effect. Her huſband had been twice married, but had no children by either of his wives.

The 18*th*. She ſwallowed caſtor oil freely, and ſubmitted to purging injections, with ſome little effect, by ſtool and urine. The injections could not be forced high enough, as there was a very hard, large lump in the vagina, obſtructing the paſſage, like a child's head advancing by labour. The pain continued, was increaſing, and more reſembling labour. She ſaid that ſhe never had a child, but imagined herſelf pregnant ſoon after her marriage, and *then* had a large diſcharge, ſuppoſed to be a miſcarriage. But, after that ſuppoſed miſcarriage, ſhe had menſtruated regularly to her 49th or 50th year of age; and ſince that time, for ten years at leaſt, ſhe had not any change of conſtitution. She ſaid that her health had been generally good, and ſhe had frequently walked ſix miles a-day; but occaſionally ſhe had complaints like colic or gravel, accompanied with coſtiveneſs, and ſtrange irregularity and difficulty in paſſing her urine. *She had not conſidered herſelf pregnant.*

The 19*th*. Labour continued, and was very troubleſome; but there was no change on the cervix uteri, which was very long in form, and not in the leaſt dilated, though very far down, like prolapſus. The cervix, at its top, was not bulbous in ſtructure; and the orifice could only admit a catheter or gooſe-quill, and was too much turned to the oſſa pubis. The vagina ſeemed to be not more than an inch and a quarter long; bones could be diſtinctly felt through the ſubſtance of the uterus, behind its long neck; and there was not any appearance of water before the bones.

During theſe three days, her ſkin was cool, her reſpiration eaſy, and her pulſe from 65 to 90, natural in ſtrength. But her appetite was very bad, and ſhe ſlept little. She got then an anodyne draught, which procured very little reſt in the night.

The 20th. She continued very ill, and her urine was quite ſuppreſſed for 24 hours. Her pulſe was 108, rather ſharp, and ſhe had not any appetite. The female catheter was tried in vain; but the male was introduced with difficulty, and two quarts of urine evacuated by it.

The neck of the uterus continued low, but was not in the leaſt altered or dilated. She got caſtor oil without any deſirable effect, and had a very uneaſy night.

The 21ſt. No change could be obſerved on the cervix uteri, though the pains continued. She had ſome unnatural heat in her ſkin, more thirſt, her pulſe was 120, ſharp, and ſhe looked much exhauſted. Her urine was again drawn off by the male catheter, introduced with difficulty. After taking off three pints of urine, her belly was examined; a flatulent ſwelling was found around her navel, and a large lump, like a child's head, left by accident, after removing the trunk of the body and extremities, was obviouſly placed in and over the brim of the pelvis. In conſultation with Meſſ. Pollock, Grahame, and M'Geach, it was then decided, that an attempt to deliver ſhould be made, as the only chance of ſaving her life. Cutting open the cervix uteri was conſidered ſafer than the Cæſarean operation, or ſeparating the oſſa pubis. There was not any hope of a living child from the examination of the abdomen, the age of the patient, &c. A director was introduced at the orifice of the uterus, and along its groove a crucial opening of the cervix uteri was made with a pair of crooked ſciſſars. The neck of the uterus was ſo long, that the inciſion formed was from one inch to two long on each ſide of the orifice, but was made ſlowly, and from neceſſity to get a finger introduced to the lump. In cutting the cervix uteri, ſhe repeatedly declared herſelf quite inſenſible of any pain; yet the uterus, in that part, was completely ſoft, natural in ſtructure, and bled freely; and ſhe had uncommon ſenſibility in the vagina, when touched or preſſed in the ſlighteſt manner. There was not any water, but ſome membranous ſubſtance found in the neck of the uterus before the hard lump, which was then felt, *evidently* of an oſſified nature. The forceps could not be puſhed up far enough into the uterus to take the uſual hold of the lump, which was conſidered as a child's head of an irregular ſhape. The ſciſſars and crotchet were then tried. The ſciſſars required great force to penetrate the oſſified ſubſtance, and aſtoniſhing efforts to turn them round in it. The crotchet could not be applied with advantage on its outſide, but got a firm hold in the hole made by the ſciſſars. After many laborious efforts, it was found impoſſible to alter the ſhape of the lump, or bring it down through the vagina.

The patient becoming faintiſh and exhauſted, the lump was puſhed above the pelvis, and ſhe got a cordial draught, with an opiate, and was left under the care of ſenſible women for the night.

The medical party agreed to meet in the morning, to conſult upon the exiſting circumſtances.

She died about eight next morning, after a night apparently eaſy, and ſleep frequently repeated. Her body being opened by Mr School jun. her inteſtines were, in ſome places, marked with black ſpots of incipient mortification, dilated with flatulency. Her liver was extremely ſmall, but not diſeaſed. The uterine tumour was large and irregular, with its ſmall end to the neck of the uterus. It was evidently a child oſſified, and connected with the uterus, the greater part of which was oſſified. The head, with the face well marked, and one arm coiled, but obviouſly perceptible, formed the larger end of the tumour felt above the pelvis; and the part opened by the ſciſſars, and conſidered the head, during the attempts to deliver, was the trunk of the body, and lower extremities compreſſed. The whole tumour reſembled a deformed buſt, having the head, neck, and trunk. There was no unnatural adheſion of the uterus, by previous inflammation, to the ſurrounding parts of the pelvis or abdomen. The child and uterus, oſſified together, were ſent to Dr Clarke, profeſſor of midwifery in Dublin.

1ſt Query. Was the inſenſibility of the uterus to the violent means uſed entirely the effect of diſeaſe? or is the uterus a ſubſtance of little ſenſibility *in its natural ſtate?*

2d Query. How long was Mrs Delap pregnant?

Preland, Auguſt 12. 1805.

IX.

IX.

Eſſay on Erythema Mercuriale, or that Eruption which ſometimes occurs from the Uſe of Mercury. By JOHN M'MULLIN, M. D.

WHEN, from the uſe of any remedy, unuſual effects are produced, it cannot fail to embarraſs the practitioner; and if theſe effects be of ſuch a nature that they are liable to be confounded with the original diſeaſe for which the remedy was exhibited, the patient muſt be ſubjected to much inconvenience, and even danger. The truth of this remark is ſtrongly exemplified in that ſpecies of eruption which ſometimes ariſes from the uſe of mercury.

Eruptions of various kinds are very common ſymptoms of ſyphilis, but a very unuſual effect of mercury; therefore, until the real nature of this erythema was lately diſcovered, whenever it occurred in patients undergoing a mercurial courſe for ſyphilitic complaints, it was naturally enough conſidered as an anomalous form of lues venerea. The mercury was conſequently puſhed to a greater extent, in proportion to the violence of the ſymptoms, and, from the cauſe of the diſeaſe being thus unconſciouſly applied for its removal, it could not fail to be aggravated, and hurried on to a fatal termination. The obſervation of this fact, conjoined with another of leſs frequent occurrence, namely, that a ſimilar eruption did ſometimes appear in patients uſing mercury for other complaints, and in whom no ſuſpicion of ſyphilis could be entertained, at laſt led ſome judicious practitioners in Dublin to the important diſcovery, that the eruption was entirely an effect of the mercury, and not at all connected with the original diſeaſe. This diſcovery was not publiſhed until the year 1804 *; and much ſtill remains to be done, in order to render the hiſtory of this troubleſome diſeaſe perfect, and to enable us to recogniſe it at its firſt appearance, on which our ſucceſs in treating it in a great meaſure depends. Having had ſeveral opportunities of accurately obſerving its progreſs, and having carefully ſtudied the obſervations of thoſe who have at all mentioned it, I ſhall endeavour, in the following eſſay, to condenſe all that I have been able to learn concerning it, either from others, or from perſonal obſervation.

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* An Eſſay on a peculiar Eruptive Diſeaſe, ariſing from the Exhibition of Mercury. By GEORGE ALLEY. Dublin. 1804.
A Deſcription of the Mercurial Lepra. By Dr MORIARTY. Dublin. 1804.
Hiſtory of three Caſes of Erythema Mercuriale, with Obſervations. By THOMAS SPENS, M. D. &c. Edinburgh.—See this Journal, vol. i. p. 7.

The different appearances which this diſeaſe aſſumes, according to its ſeverity and duration, will be beſt underſtood by deſcribing it as conſiſting of three diſtinct ſtages.

The firſt ſtage commences with languor, laſſitude, and cold ſhiverings; theſe ſymptoms are ſucceeded by increaſed temperature of the body, quick pulſe, nauſea, headach, and thirſt. The patient is troubled with a dry cough, and complains of difficult reſpiration, anxiety, and ſenſe of ſtricture about the præcordia. The tongue is uſually moiſt, and covered with a white glutinous ſlime; it ſometimes appears clean and bright red in the centre, whilſt the margins remain foul. The ſkin feels unuſually hot and itchy, with a ſenſe of prickling, not unlike the ſenſation experienced from the application of nettles. The belly is generally coſtive, but a diarrhœa is often produced by very ſlight cauſes.

On the firſt or ſecond day an eruption moſt commonly ſhows itſelf, the colour of which is either dark or bright red: the papulæ * are at firſt diſtinct and elevated, reſembling very much thoſe in rubeola. Sometimes, but rarely, the eruption appears like urticaria, and in ſuch inſtances the diſeaſe is obſerved to be very mild. The papulæ very ſpeedily run together in ſuch a manner as to form a ſuffuſed redneſs, which diſappears on preſſure. In moſt caſes it begins firſt on the ſcrotum, inſide of the thighs, fore arm, or where mercurial friction had been applied, and the integuments of the parts affected become much ſwoln. There have alſo been obſerved inſtances where an eruption of a purpliſh colour, and unaccompanied by papulæ, has diffuſed itſelf ſuddenly over the entire body †. This, however, may be conſidered as uncommon. In every inſtance which came under my obſervation, it was confined at firſt to a few places, and from thence gradually extended, until the different portions of the eruption had united, and the papulæ were alſo rough to the feel. But in thoſe caſes which reſemble urticaria, a number of minute veſicles, which contain a ſerous fluid, appear, from the commencement, interſperſed among the papulæ. Contrary to what happens in moſt diſeaſes accompanied with cutaneous affections, the febrile ſymptoms are much aggravated, and continue to

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* *Papula;* a very ſmall and acuminated elevation of the cuticle, with an inflamed baſe, not containing a fluid, not tending to ſuppuration.

The duration of papulæ is uncertain; but they terminate for the moſt part in ſcurf.—*Willan on Cutaneous Diſeaſes,* p. 13.

† Dr Moriarty on Lepra Mercurialis.

to increaſe after the eruption has been completed. The pulſe in general beats from 120 to 130 in a minute, the thirſt continues urgent, and the patient, extremely reſtleſs, ſeldom enjoys quiet ſleep. When the eruption has continued in this manner for a certain period, the cuticle begins to peel off in thin, whitiſh, ſcurfy * exfoliations, not unlike thoſe obſerved in rubeola. This deſquamation has not been attended to by Dr Moriarty or Mr Alley, if they have not, by giving the ſame name to the decruſtation which occurs in the laſt ſtage, confounded both together. It commences in thoſe places where the eruption firſt made its appearance, and in this order ſpreads to other parts. About this period the fauces become ſore, the tongue ſwells, and the eyes appear ſomewhat inflamed.

The duration of this ſtage is very various; ſometimes it continues from ten to fourteen days, and in other caſes it terminates in half that time. When the diſeaſe has appeared in its mildeſt form, the patient recovers immediately after this deſquamation, a new cuticle having formed underneath; but, if ſevere, he has only experienced the ſmalleſt part of his ſufferings, and the ſkin now aſſumes a new appearance, which I have conſidered as the ſecond ſtage.

The ſkin at this period appears as if ſtudded with innumerable minute veſicles, which are filled with a pellucid fluid. Theſe veſicles may be expected, if the patient, at the cloſe of the firſt ſtage, complains of increaſed itching, and ſenſe of burning heat, in thoſe parts from whence the cuticular exfoliations have fallen. They remain ſometimes for a day or two, but are moſt commonly burſt, immediately after their formation, by the patient rubbing them, in order to relieve the troubleſome itchineſs with which theſe parts are affected. They diſcharge a ſerous, acrimonious fluid, which poſſeſſes ſuch a very diſagreeable odour as to induce nauſea in the patient himſelf, and thoſe who approach near his bed-ſide. The odour is ſo peculiar, that it can eaſily be recogniſed by any perſon who has once experienced it.

This fluid is poured out moſt copiouſly from the ſcrotum, groin, inſide of the thighs, or wherever the ſkin forms folds, and ſebaceous glands are moſt numerous. The ſerous diſcharge from theſe minute veſicles form, with the cuticle, an incruſtation, which may be conſidered as the third or laſt ſtage.

Theſe

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* *Scurf* (furfura); small exfoliations of the cuticle, which take place after some eruptions on the skin, a new cuticle being formed underneath during the exfoliation.—*Willan*, p. 12.

Scale (squama); a lamina of morbid cuticle, hard, thickened, whitish, and opaque. Scales have at first the figure and extent of the cuticular lozenges, but afterwards often increase into irregular layers, denominated crusts.

Theſe cruſts are generally very large, and, when detached, retain the figure of the parts from which they have fallen. Their colour is yellowiſh, but ſometimes appears dark and dirty. This period of the diſeaſe might be termed, I think, with much propriety, the ſtage of *decruſtation*, in order to diſtinguiſh it more fully from the *deſquamation* which has been already noticed. From the uſe of the two laſt terms indiſcriminately, thoſe who have deſcribed the diſeaſe have introduced into their deſcriptions a degree of confuſion, which has cauſed its progreſs not to be well underſtood. When this ſtage appears, the fauces become more affected, the eyes intolerant of light, and the tarſi tender, inflamed, and ſometimes inverted. The cruſts formed on the face, as in other parts of the body, before falling off, divide aſunder, ſo as to leave cracks and fiſſures, which produce an hideous expreſſion of countenance; and the eyelids are alſo, from the general ſwelling of the face, completely cloſed. The back and hairy ſcalp are laſt affected, and, even in very ſevere caſes, theſe parts are ſometimes obſerved to eſcape entirely. The patient, whilſt in this ſtate, is compelled to deſiſt from every kind of motion, on account of the pain which he experiences on the ſlighteſt exertion, and which he deſcribes as if his fleſh were cracking. The cruſts alſo fall off in ſuch abundance, that the bed appears as if ſtrewed with the cones of hops. Whilſt the eruption is only making its appearance in one place, another part may have arrived at its moſt advanced form; ſo that all the different ſtages of the diſeaſe may be preſent at one time in the ſame individual. It is attended with typhus through its entire courſe; but it is very curious to obſerve, that the appetite for food, in moſt caſes, remains unimpaired, and ſometimes is even voracious. This circumſtance was particularly remarkable in a patient who laboured under the diſeaſe, in its worſt form, for the ſpace of three months, in the Royal Infirmary of Edinburgh; for double the uſual hoſpital allowance of food was ſcarcely ſufficient to ſatisfy his hunger. When the catarrhal ſymptoms have continued during the progreſs of the complaint, they are, at this advanced period, particularly aggravated: the anxiety and pain of breaſt are alſo very ſevere, attended with cough, and bloody expectoration, and the patient always feels languid and dejected. The pulſe becomes frequent, feeble, and irregular, the tongue black and parched, and at length diarrhœa, delirium, convulſions, gangrene of the ſurface of the body, and death, ſupervene. In its mild form, it only goes through the firſt ſtage, and terminates, as we have already ſtated, in a few days, by a ſlight deſquamation. But, when ſevere, it is often protracted more than two months, every ſtage of the eruption continuing proportionably longer; and when, in this manner, it has run its courſe, it repeatedly breaks out on the new ſurface, and paſſes through the ſame ſtages.

Concerning the remote cauſes of this diſeaſe, it is agreed that ſuch an affection has never been noticed, except in thoſe uſing mercury; and it is neceſſary to obſerve, that every preparation of mercury, and every mode of exhibition, are found equally capable of producing the diſeaſe. When it firſt excited attention, it was conceived, on account of its being obſerved in ſyphilitic patients under the action of this remedy, to be an anomalous form of lues venerea. But its repeated occurrence, where no ſyphilitic taint could be ſuſpected, ſoon removed this miſtake; and it then became a queſtion why the diſeaſe ſhould appear in ſo few perſons, compared to the great number who are daily uſing this invaluable medicine.

It was preſumed, from its comparative rarity, that thoſe attacked in this manner muſt be endowed with a peculiarity of conſtitution, to which the term *idioſynery* has been applied. In ſuch habits, it was ſuppoſed that the irritation, which mercury uſually produces, proved the exciting cauſe; and this opinion was ſupported by the well-eſtabliſhed fact, that an eruption immediately ſhows itſelf in ſome perſons after the uſe of certain articles in diet, more particularly the bitter kernels of fruits, cinchona, ſome ſpecies of fiſh, eſpecially ſhell-fiſh, &c. Dr Gregory (who has for many years, in his lectures on the practice of phyſic, remarked that a peculiar eruption ſometimes appears in certain habits from the employment of mercury) ſuppoſes that the application of cold to the body, whilſt under the action of mercury, is abſolutely neceſſary for its production; and the conſtant combination of catarrhal ſymptoms would make me diſpoſed to adopt this opinion.

The diſeaſe which bears the moſt ſtriking analogy to the erythema mercuriale is the *Eryſipelas Chinenſe* of Sauvages, to which thoſe who gather varniſh from the Rhus vernix are liable, as will ſufficiently appear from the following extract from Du Halde:

> ‘ It is neceſſary to take ſome precautions to ſecure the workmen from the bad impreſſion of the varniſh; ſo that whether the merchant maintains them or not, they are obliged to have a large veſſel of oil, wherein has been boiled a certain quantity of the fleſhy filaments found mixed in hog's fat, and which will not melt with the other part; the proportion is one ounce to a pound of oil.
>
> ‘ When the workmen go to place the ſhells in the trees, they carry with them a little of this oil, wherewith they rub the viſage and the hands; and in the morning, when they have gathered the varniſh; and

and return to the merchants, they rub themſelves more carefully with it.

'After dinner they waſh their bodies with hot water, which the merchant has ready, in which they boil a certain quantity of the following drugs, viz. of the outward rough bark of cheſnuts, the bark of the fir-tree, ſaltpetre in cryſtals, and an herb which they eat in China, and in the Indies, and is a ſort of blits; all theſe drugs are ſuppoſed to be of a cold nature.

'Every workman fills a little baſon with this water, and waſhes himſelf with it carefully; but inſtead of the common baſons uſed by the Chineſe to waſh their faces in the morning, which are of copper, the workmen who gather varniſh, rejecting this metal, uſe thoſe that are made of tin.

'At the time when they work at the trees, they wrap their heads in a linen bag, which they tie about their necks, and leave only two holes to ſee through; they cover themſelves before with a ſort of apron made of doe-ſkin, which they tie about their necks with ſtrings; they have alſo buſkins of the ſame, and long gloves on their arms.'

'The workmen pay very dear for gathering the varniſh, when they do not take the precautions mentioned: The diſeaſe begins with a kind of ring-worm, which, in the ſpace of a day, covers the face and the reſt of the body, for it ſpreads in a few hours, and grows very red; ſoon after, the face begins to ſwell as well as the body, till the perſon ſeems quite covered with a leproſy.

'To heal a man attacked with this diſtemper, they give him immediately a conſiderable quantity of the medicinal water that the workmen waſhed with to prevent theſe accidents: This water purges violently, and they afterwards make a ſtrong fumigation with the ſame water, and then wrap him up very cloſe till the ſwelling is gone down; but the ſkin is not ſo ſoon healed; for it cracks in ſeveral places, from whence a great deal of water proceeds: To remedy this, they take of the herb that I have ſaid to be a kind of blits, then dry and burn it, and put the aſhes upon the parts affected, which imbibe the ſharp humour that proceeds therefrom, and then the ſkin dries, falls off, and comes anew.—*The General Hiſtory of China, done from the French of Du Halde*, vol. ii. p. 306. 8vo. London, 1736.

In forming our diagnoſis, the only affection with which there is any great danger of confounding it in its firſt ſtages is *Rubeola*, and it is only in the firſt ſtage that any diagnoſtic marks are required. The following circumſtances are to be attended to in diſtinguiſhing them from each other.

1*ſt*, The colour of the eruption is very different; for in rubeola it gradually changes from a bright to a dark red, until it has been completed; but this affection aſſumes, from the commencement, a darker colour, even in mild caſes, and ſeldom acquires a deeper hue during its progreſs.

2dly, The rubeolous eruption generally appears firſt on the face; but, in this affection, the thighs, groin, ſcrotum, extremities, or where mercurial friction had been applied, ſooneſt effloreſce.

3dly, Rubeola always terminates by a dry, furfuraceous deſquamation; but after that period, in the preſent complaint, minute veſicles are ſometimes formed, which pour out a fluid of an offenſive odour, and cruſts of conſiderable ſize repeatedly fall off. The abſence alſo of ſome of the characteriſtics of rubeola, as ſneezing, coryza, and epiphora, will aſſiſt us in the diagnoſis at the commencement.

The ſurface of the body is more generally affected than in *Eryſipelas;* and the veſicles, which are very minute, do not appear (unleſs in thoſe caſes reſembling urticaria) until after deſquamation. Some have miſtaken this diſeaſe, at its commencement, for *Scarlatina*; but the colour of the eruption is much more florid, and the affection of the fauces, which, in that diſeaſe, is one of the firſt ſymptoms, does not take place in erythema mercuriale until the period of deſquamation. There remains, as yet, another affection of the ſkin, which it ſeems neceſſary to point out its difference, namely, the venereal eruption; but there cannot be a probability of confounding them, if we reflect that the latter always appears in diſtinct circular blotches, unattended by any febrile ſymptoms.

Theſe are the only diſeaſes which bear the ſmalleſt degree of reſemblance to the preſent, and it is only when the eruption firſt breaks out, that any degree of nicety is required in marking the diſtinction.

I ſhould not have conſidered it neceſſary to draw any diagnoſis between it and *Pemphigus*, if the very accurate Dr Willan had not publiſhed, as an inſtance of the latter affection, what appears to be a well-marked caſe of erythema mercuriale. I ſhall quote it in his own words.

' Pemphigus, or the veſicular fever, is a rare diſeaſe in this country. The ſolitary inſtance of it, noted in July, was a young woman, about twenty years of age, teacher in a ſchool at Walworth, and of a weakly conſtitution; ſhe had taken ſome *mercurial* remedies, for a glandular ſwelling, three weeks before her eruptive complaint appeared. It began with a violent heat and itching at one of her elbows; the other was ſoon after affected, when both arms ſwelled up to the ſhoulder; and, within two days, they were covered with veſications. The veſicles ſoon broke, and diſcharged an acrimonious lymph, which bliſtered where it fell. Similar veſicles aroſe in a day or two on the face, the ſcalp, the trunk of the body, the limbs, the palms of the hands, and the ſoles of the feet. They were *ſmall*, and cloſe together, ſo that, after they were broken, nearly the whole cuticle was detached. The fever, and the eruptive ſtage of the diſorder, laſted, on the whole, about eight days; during that time, the patient was weak, irritable, and tremulous, her pulſe being generally 132; ſhe had no appetite, got but little reſt, and was ſometimes delirious. Her face was ſcabbed all over, as in the confluent ſmall-pox. Before a new cuticle was formed on the trunk of the body, there was a thin incruſtation, which gradually peeled off in dry yellowiſh ſcales; but a freſh diſcharge and a new incruſtation repeatedly took place. The ſkin of the legs was red and tender, and appeared as if ſtudded with miliary puſtules; which breaking, diſcharged their lymph, and were ſucceeded by others. At the end of the third week, the ſkin of her fingers and toes came off entire, together with the nails. Three weeks more elapſed before the cuticle was reſtored, ſo that ſhe could ſtir out of her bed. I ſaw her on the firſt of October, free from complaint; her nails were then renewed; her hair, which had at firſt partly fallen off, was become thicker. The ſkin of her neck, arms, and legs, appeared rough, papulated, and ſcaly, as in a ſlight kind of the dry tetter; her eyes remained weak and tender, as they had indeed been from the commencement of the diſorder.'—*Willan's Reports of the Diſeaſes in London, particularly during* 1796, 7, 8, 9, and 1800. 12mo. Lond. 1801.

But pemphigus, in Dr Willan's own arrangement of cutaneous diſeaſes, is a genus of the order bullæ, which he defines in the following words:—"Veſicle (bulla), an elevation of the cuticle, *of a large ſize*, irregularly circumſcribed, and containing a tranſparent watery fluid." In pemphigus, moreover, the veſicles are ſucceeded by a black ſcab.

In its advanced ſtage, it certainly has ſome reſemblance to *Lepra*, but differs from it in many particulars, and eſpecially in being an acute diſeaſe, always attended with fever, and in being diffuſed, inſtead of being collected, in ſcaly patches, nearly of a circular form. Profeſſor Henſler of Kiel, in his claſſical work on leproſy, has deſcribed a caſe under the title of tyriaſis, which ſeems, in many reſpects, to partake both of the nature of the lepra tyria, and of our erythema. It was the caſe of a young woman in Hamburgh, whom he unfortunately ſaw but once, and the deſcription in his notes is therefore imperfect. "Her whole appearance was ſwelled, the cuticle of a dirty white colour, dry, brittle, and looſe upon the ſkin, which, to the touch, ſeemed ſoft and anaſarcous. Here and there it was even cracked, and exuded a little fluid. The epidermis was covered with numerous ſcaly cruſts, reſembling lichens in miniature, and, upon the whole, it looked as if it was covered with powder." Of her previous and ſubſequent hiſtory he was only able to learn the following circumſtances. On the ſupervention of this eruption, decided ſymptoms of phthiſis pulmonalis, for the cure of which we are not told what remedies ſhe uſed, had completely diſappeared, and never returned. The eruption had been three times almoſt entirely removed, once by very large doſes of cicuta and corroſive ſublimate; a ſecond time, as all antimonial and *mercurial remedies ſeemed only to aggravate it,* by tincture of cantharides; and a third time, when the diſeaſe had reached its greateſt height, by arſenic, which, although given in very ſmall doſes, only $\frac{1}{16}$ of a grain three times a-day, ſeemed to promiſe a cure, when ſuddenly, after being continued 14 days, it produced poiſonous effects, and the patient was with difficulty ſaved. During this period, a general warm ſweat took place; whereas, at all other times, her ſkin was arid, and did not perſpire, and the cruſts which remained deſquamated rapidly. The ſkin of the breast and upper extremities remained free from cruſts until within a few days of her death. On the brow, upper eye-lids, and noſe, it had rather a whitiſh colour; on other parts it had a pale reddiſh hue. The hairy ſcalp was covered with a thick, very ill-ſmelling cruſt, which ſeparated repeatedly, ſlowly, and painfully, but was ſpeedily renewed. Her upper eye-lids were ſwelled, tenſe, and ſtiff; the Meibomian glands were affected, and ſhe had intolerance of light, with frequent watering of the eyes. Her lips and gums always retained their natural colour. No knots reſembling ſwelled glands were ever obſerved; and her nails never dropped off. When viſited the day preceding her death, the fœtor from her body was inſupportable; ſhe ſeemed as if her cuticle had been peeled off, and ſhe had been covered in ſome places with flakes of ſnow. Of all the caſes of lepra or elephantiaſis which I have met with (if, indeed, it belong to either), this differs leaſt from the erythema mercuriale, and will therefore ſerve to point out the diſtinction between them.

I have been thus particular in giving a diagnoſis, as it is proper to attach ſome degree of importance to an early knowledge of the nature of the eruption; for, in moſt of the caſes which I have had an opportunity of witneſſing, the comparative mildneſs or ſeverity of the diſeaſe was proportioned to the length of time which the mercury was continued after its appearance. In our prognoſis we ſhould therefore take that circumſtance into conſideration. We may alſo ſometimes foretell the degree of ſeverity which the diſeaſe may afterwards aſſume, by obſerving the colour of the eruption, for it is found that the nearer it approaches to a dark purple, the more ſevere and longer of continuance will be the progreſs of its different ſtages. The more troubleſome the itching, the more copious in general is the ſerous diſcharge; and thoſe parts which feel moſt itchy firſt exude, on account of the minute veſicles being burſt by the continued friction. The ſeaſon of the year and the conſtitution of the patient are likewiſe to be attended to, and, as happens in other febrile diſeaſes, its ſymptoms are modified by the nature of the prevailing epidemic.

The diſeaſe ſeldom aſſumes its advanced ſtages if the exciting cauſe be removed, and a proper mode of treatment adopted.

Since this diſeaſe is ſolely occaſioned by the uſe of mercury, under one form or another, it muſt be obvious that the firſt ſtep in the treatment ſhould be the immediate diſcontinuance of its uſe. And, connected with this part of the cure, it may be remarked, that in large hoſpitals, and particularly thoſe appropriated to venereal caſes, we ought immediately to remove our patient from ſuch wards as may have their atmoſphere vitiated by the breathing of perſons charged in general with mercury; for although they may not produce what has by ſome been termed a mercurial atmoſphere, yet they cannot but generate ſuch a ſtate of it as muſt prove highly noxious. With the view of removing the itchineſs and uneaſineſs of the ſkin, which now occurs, and alſo as means of cleanlineſs, we may employ tepid bathing. The proper temperature of the bath would ſeem to be from the 78th to the 84th degree of Fahrenheit; for within this range they will produce in general the deſired effect, without endangering the aggravation of the ſymptoms, which, from inattention to this point, has in ſome inſtances occurred. Where, however, theſe means are found ineffectual in removing the diſeaſe, a ſtrict adherence to the adminiſtration of ſuch remedies as are known to alleviate the febrile ſymptoms muſt be obſerved. With this intention, emetics, as tartrite of antimony, or ipecacuanha and diaphoretics, particularly thoſe from the neutral claſs of ſalts, as citrate of potaſh and acetite of ammonia, are properly employed. In this ſtage of the complaint, however, antimonial medicines ſhould be very cautiouſly uſed; for although they are very advantageouſly employed in moſt diſeaſes where diaphoreſis is indicated, yet, in this affection, from the very irritable ſtate of the bowels, they are ſcarcely admiſſible; nor can we with ſafety correct their action on the inteſtinal canal by means of opium, which is found rather injurious at this period. The mineral acids, ripe fruits, &c. may alſo be allowed, at the ſame time cautiouſly obſerving their effects on the bowels. The temperature in which the patient is kept ſhould be ſomewhat higher than is generally recommended in febrile caſes, both on account of the catarrhal ſymptoms, and from his being in general extremely ſenſible to the effects of cold applied to the ſurface; but, at the ſame time, advantage is always derived from a conſtant renewal of the air which ſurrounds him. Having remarked the readineſs with which the bowels are affected from ſlight cauſes, it will be evident, that when purgatives are required, thoſe of the moſt lenient kind only will be adviſable; as oleum ricini, ſulphas magneſiæ, &c. Whilſt we attend to the ſyſtem in general, we muſt not neglect the local treatment, wihch conſiſts chiefly in a continuance of the tepid bathing, and great attention to cleanlineſs. Applications of different kinds have been tried in this ſtage of the eruption, as ſolutions of ſulphate of zinc, acetite of lead, ſulphur ointment, and decoctions of oak-bark, but without any good effect. Sprinkling with ſtarch, from its common employment in eryſipelas, has been by many uſed, and this, by ſuperſeding the uſe of more irritating applications, may not have been without its benefit. To allay the cough and ſoreneſs of the fauces, mucilaginous mixtures, with the addition of a ſmall quantity of opium, may be uſed. And although Mr Alley has recommended bliſters to the back or breaſt, yet the danger of the bliſtered parts falling ſpeedily into a ſtate of mortification ſhould, in moſt caſes, forbid their application. The tranſition from the firſt to the ſecond ſtage of the diſeaſe is by no means ſo well marked as to point out when we ſhould change our firſt plan of treatment. But, as the fever is always found to aſſume more ſtrongly the typhoid type as the incruſtations become general, it will ſerve alſo to direct us in the remedies we employ. With the view of obviating the debility, which is generally very great, bark has uſually been preſcribed; but from its invariably diſagreeing with the ſtomach, or producing diarrhœa, it cannot be given in ſufficient quantity. In ſome inſtances, the cold infuſion, conjoined with aromatics, has been beſt retained; and we may now alſo add ſome opium, without any dread of thoſe unpleaſant effects which are experienced from its uſe in the firſt ſtage. Wine is the beſt remedy at this period of the diſeaſe, and is highly reliſhed by the patient. Porter may alſo be uſed with advantage, and diluted alcohol, in moderate quantity, may be employed with the ſame intention. The thirſt being now urgent, large quantities of diluents will be neceſſary; as whey, light broths, and nouriſhing drinks of every kind. In this ſtage, tepid bathing can ſeldom be had recourſe to; on account of the extent of ſurface which is left raw by the repeated decruſtation, the body is unable to bear the ſtimulus of heat, and the patient uſually falls into a ſtate of ſyncope on its application. All, therefore, we can do in ſuch caſes is to employ tepid ablution, which, as means of cleanlineſs, is indiſpenſably neceſſary. To relieve the ophthalmia tarſi, the unguentum oxidi zinci will in general prove ſufficient. And that diſtreſſing ſymptom, which ſome deſcribe as if their fleſh were cracking, is beſt removed by the linimentum aquæ calcis, which is perhaps preferable to all other applications, and ſhould be liberally applied as ſoon as cruſts appear.

Conſiderable difference in opinion has ariſen concerning the name by which this diſeaſe ſhould be diſtinguiſhed, and the place which it ſhould occupy in noſological ſyſtems. According to the opinion entertained of its nature, it has been called, by Dr Moriarty, lepra mercurialis, and by Dr Spens, erythema mercuriale; while Mr Alley thinks the unſyſtematic and ambiguous appellation of mercurial diſeaſe preferable to either. This difference of opinion ariſes partly from the imperfection of our noſological ſyſtems, and partly from claſſing the diſeaſe from whatever appears the ſtrongeſt analogy, inſtead of reducing it analytically to its claſs, order, and genus, in that ſyſtem which we prefer. This diſcuſſion, contrary to cuſtom, I have intentionally poſtponed to the laſt, that, in elucidating it, I may take advantage of every thing known with regard to the diſeaſe. If we adopt Cullen's ſyſtem of noſology, it is evident, from being attended with fever from the very beginning to the termination, it muſt be claſſed among the pyrexiæ. It is not, however, ſo eaſy to determine to which of the orders of this claſs it belongs, certainly not to the profluvia, or hæmorrhagiæ, or febres. It would be equally excluded from the remaining two orders, if Dr Cullen's definitions of them were to be rigidly adhered to; from the phlegmaſiæ, becauſe the attendant fever is typhoid, and the blood is not ſizy; and from the exanthemata, becauſe the diſeaſe is not contagious. But Dr Cullen himſelf admits that theſe definitions are faulty, and he has in ſeveral inſtances deviated from them. All his exanthemata are not contagious, and ſome of his phlegmaſiæ are accompanied with typhoid fever. Among the phlegmaſiæ, erythema is the only genus to which it can be referred. Of the exanthemata, ſome ariſe from ſpecific contagion, others do not: to the former family our eruption does not belong; and from all the individuals of the latter, except eryſipelas, it is diſtinguiſhed by the ſmallneſs of its papulæ, and its very general diffuſion. But of the diffuſed inflammations of the ſkin, I am inclined rather to conſider it as belonging to the exanthematic than to the inflammatory; for the affection of the ſyſtem is not ſymptomatical of the external inflammation, but the external inflammation is ſymptomatical of the affection of the ſyſtem. Therefore, if we were to follow Dr Cullen's ſyſtem, it muſt be conſidered as a ſpecies or variety of eryſipelas. But, in Dr Willan's highly improved noſology of the ſkin, it will conſtitute a ſpecies or variety of the 7th genus of his 3d order, exanthemata,

exanthemata *; and therefore, of the various names which have been given to this affection, I have preferred that of Erythema Mercuriale.

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* *Rash* (Exanthemata) consists of red patches on the skin variously figured, in general confluent and diffused irregularly over the body, leaving interstices of a natural colour. Portions of the cuticle are elevated in a rash, but the elevations are not acuminated. The eruption is usually complicated with a general disorder of the constitution, and terminates in a few days by cuticular exfoliations.
Willan. Def. iv.

VIII.

Second Eſſay on the Analyſis of Animal Fluids. By John Bostock, M. D. Liverpool.

In my former eſſay † I endeavoured to aſcertain a definite character for the three primary animal fluids, albumen, jelly, and mucus, and to point out teſts by means of which their preſence might be detected with facility and preciſion. I now propoſe to offer ſome obſervations upon the method to be employed in the analyſis of thoſe compound fluids, of which the three ſubſtances above mentioned form a principal part. I ſhall arrange my remarks according to the order adopted in my former paper, beginning with the conſideration of the albumen.

My firſt object was to diſcover ſome method by which the exact proportion of this ſubſtance might be aſcertained in any fluid of which it formed a component part. The application of caloric, as appears from my former experiments, affords a very accurate teſt of the preſence even of the ſmalleſt quantity of albumen; but I found that it was not poſſible, by this agent, to ſeparate it from the water, or other ſubſtance, with which it is combined. When a ſolution containing $\frac{1}{10}$ of its weight of pure albumen was kept for ſome time at the boiling temperature, the whole fluid aſſumed an opake and ſemi-gelatinous appearance; but the water ſtill remained ſo far attached to the ſolid matter, that it ſcarcely paſſed at all through a filter of bibulous paper: a part of it was not tranſmitted, even after it had lain upon it for ſeveral days, and was beginning to exhibit marks of putrefaction. When albumen exiſts in that ſtate of concentration in which it is found in the white of the egg, *i. e.* compoſing about 15 parts in the 100, it is capable, as we know, of becoming ſo completely concreted as to reſemble a ſolid ſubſtance, and, if it

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† See this Journal, vol. i. p. 257.

be divided into ſmall pieces, it may be digeſted in hot water, without its figure or conſiſtency being affected.

It appeared a ſubject of ſome importance to aſcertain the degree of dilution of which albumen admits without loſing this property, as, by this means, ſome general idea might be formed of the proportion of it in any compound fluid, merely by the application of caloric, in thoſe caſes where we may not have it in our power to enter upon a more minute examination. I found that the white of the egg, after being mixed with half its weight of water, ſtill retained the power of becoming ſo far coagulated, that the figure of its parts, when divided by a knife, was not altered; but that when an equal weight of water was added to the white of the egg, though it was rendered completely opake by heat, yet it ſtill retained ſome part of its fluidity, ſo that it might be ſlowly poured from one veſſel to another. In the former caſe the albumen compoſed ſomewhat leſs than $\frac{1}{10}$ part of the weight of the fluid, and in the ſecond about $\frac{1}{13}$.

I had next recourſe to the oxymuriate of mercury, which I had before found to be, as it were, the appropriate coagulator of albumen. I experienced, however, the ſame kind of difficulty in this caſe, as in the employment of caloric. Notwithſtanding the delicacy with which the oxymuriate of mercury detects the moſt minute portion of albumen, I found the coagulation to be ſo incomplete, that the fluid continued to retain a conſiderable degree of opacity, after being paſſed through a filter, and to be ſtill coagulable by the application of heat, even when it indicated an exceſs of the oxymuriate. The entire ſeparation of the albumen ſeemed, however, to be attained by the union of both theſe methods, *i. e.* by ſubjecting the fluid to the boiling temperature, after the addition of a requiſite quantity of the oxymuriate of mercury. That we may be aſſured that a ſufficient quantity of the metallic ſalt has been employed, it is neceſſary that it be added a little in exceſs; a circumſtance which may be eaſily aſcertained, by obſerving whether the filtered fluid poſſeſs the power of precipitating a freſh ſolution of albumen.

The precipitate produced by the joint operation of caloric and the oxymuriate of mercury is a compound of albumen and the metallic ſalt; ſo that, before we can aſcertain the quantity of the former, it will be neceſſary to learn in what proportion they are diſpoſed to combine with each other. But this point, ſimple as it may appear, is not unattended with difficulty; it is not eaſy to collect and detach from the filter a ſubſtance of this peculiar texture; and much nicety is requiſite in the ſubſequent drying, ſo that all the moiſture may be completely expelled, and yet that the ſubſtance ſhould not experience any commencement of decompoſition.

compoſition. Making the experiment with the requiſite precautions, it appeared to me that albumen, when coagulated by the addition of the oxymuriate of mercury, unites itſelf to between $\frac{1}{3}$ and $\frac{1}{4}$ of its weight of the ſalt. If this eſtimate be confirmed by more extenſive experiments, it will be eaſy to calculate, with tolerable accuracy, the quantity of albumen in any compound animal fluid, by employing a ſolution of the oxymuriate of mercury of a known ſtrength, and obſerving what quantity it is neceſſary to ſaturate a given quantity of the body under examination. If, for example, we find that 100 grains of the fluid require 60 grains of a ſolution containing $\frac{1}{20}$ of its weight of the oxymuriate of mercury, it will follow, that it contains 10.5 grains of albumen.

Before I leave the ſubject of albumen, I ſhall make ſome remarks upon the uncoagulable part of the white of the egg. I found it very generally to conſtitute about $\frac{1}{4}$ of the weight of the whole ſolid contents, as ſtated in my former eſſay. A ſolution of this ſubſtance, in about 100 times its weight of water, was not affected by the addition of the oxymuriate of mercury, or the decoction of galls, but a ſingle drop of the aqua lithargyri acetati threw down a copious precipitate. I gradually evaporated the fluid, and occaſionally ſtopped the proceſs when it was nearly completed ; but I did not obſerve any tendency towards gelatinization, or the exhibition of any cryſtalline appearance. I concluded, therefore, that it conſiſted altogether of mucus.

In the courſe of my experiments on albumen, particularly thoſe made during the ſummer months, I have obſerved, that this ſubſtance is leſs diſpoſed to become putrid in its natural ſtate than when diluted with a greater proportion of water, and that a ſolution of the mucilaginous part, formed by waſhing the coagulated albumen, was ſtill more ſubject to decompoſition. In ſome inſtances, where I permitted a diluted ſolution of the albumen ovi to become putrid, I was forcibly impreſſed with the reſemblance of its odour to that of pus ; whereas the putrid mucilage diſcharged the uſual nauſeous ſmell.

With reſpect to the ſaline ingredients of the albumen ovi, they ſeem to exiſt in very minute proportion. I was never able to detect any viſible indication of ſaline matter by the evaporation of the water in which coagulated albumen had been waſhed ; a conſiderable precipitate was indeed produced by the addition of the nitrate of ſilver ; but I concluded, from its appearance, that at leaſt the greateſt part of the effect depended upon the coagulation of the animal matter, though ſome part of it might be due to the preſence of the muriate of ſoda.

The albumen ovi exhibits ſlight alkaline effects upon the appropriate teſt papers; and, by means of the oxalic acid, a very minute trace of lime may be detected, which probably exiſts in combination with the phoſphoric acid. In order to aſcertain the quantity of alkali, I formed a very diluted alkaline ſolution of a known ſtrength, and obſerved how much acetous acid was neceſſary to neutralize a given weight of it. With the ſame acetous acid I neutralized a portion of the white of the egg, and, making the neceſſary calculations, I eſtimated that 100 grains of the albumen ovi contain no more than $\frac{1}{12}$ of a grain of alkali. This alkali has generally been ſuppoſed to be ſoda, and as this ſalt is more frequently preſent in the different parts of the animal body than potaſh, we may conclude, with ſome plauſibility, that it is ſoda which exiſts in the albumen ovi. It has been ſuppoſed to exiſt in the pure or cauſtic ſtate; but I am not aware of any method by which this circumſtance can be aſcertained. I added the carbonate of ſoda to a ſolution of albumen ovi, in conſiderably greater quantity than that indicated above, yet the addition of the ſulphuric acid produced no viſible effervеſcence. I think it muſt therefore remain undetermined, whether the alkali exiſt in the pure or carbonated ſtate.

The method of aſcertaining the exact quantity of jelly in any compound fluid is, upon the whole, more eaſy. Iſinglaſs affords us the means of obtaining jelly in a ſtate of almoſt perfect purity; by forming a ſolution of this ſubſtance, and an infuſion of galls of a known ſtrength, by adding them to each other until they are neutralized, and collecting the precipitate, we can aſcertain the reſpective proportions neceſſary to produce the neutral compound. As the precipitate formed in this caſe ſubſides ſlowly, it is more convenient, after the mixture of the jelly and the galls, to filter the compound, and to add a little of the filtered fluid to freſh ſolutions of jelly and galls reſpectively; from obſerving in which of the ſolutions a precipitate is produced, we are enabled to determine which ingredient exiſts in exceſs, and to correct the deficiency in a ſubſequent experiment; this proceſs muſt be repeated until the filtered fluid produces no precipitate with either of the reagents. By proceeding in this manner I am led to conclude, that the compound formed by the union of jelly and tannin conſiſts of ſomewhat leſs than two parts of tannin to one of jelly; as we always have it in our power to aſcertain the quantity of tan that we employ, we may, by an eaſy calculation, deduce the amount of the jelly in any fluid under examination.

I have not yet been able to fall upon a method for directly determining the proportion of mucus in a compound fluid, in conſequence of the facility with which goulard decompoſes the different ingredients, both animal and ſaline, which are always to be ſuſpected in thoſe ſubſtances that contain mucus, even in a ſtate the neareſt approaching to purity. Muriate of ſoda is, I believe, always preſent wherever we have mucus; and the goulard, which ſo readily and completely precipitates the mucus, likewiſe decompoſes the common ſalt. The nitro-muriate and the muriate of tin, and the nitro-muriate of gold, all cauſe a conſiderable precipitation in a ſolution of ſaliva; but the ſupernatant fluid remains opake, as if it ſtill contained ſome animal matter; and, in conſequence of the muriatic acid which enters into the compoſition of theſe ſalts, we are not able afterwards to ſearch for the muriate of ſoda, by applying the teſt of the nitrate of ſilver. The nitrate of ſilver itſelf, although it ſcarcely produces any effect upon a ſolution of vegetable gum, which is when added to ſaliva, throws down a very copious precipitate, partly of a denſe powder, and partly of a flocculent matter: This, I apprehend, proceeds from its acting both upon the mucus and the muriate of ſoda. The nitro-muriates of tin and of gold do not decompoſe common ſalt, but they precipitate albumen as well as mucus, and, on this account, cannot be employed. The only way of proceeding that I have been hitherto able to employ is to diſcover the quantity of albumen and of jelly by the methods mentioned above, and after deducting their weight from the whole of the ſolid contents, to conſider the remainder as mucus; but here we are neceſſarily confounding the mucus and the ſalts. After this ſtatement, I need not add that the ſubject ſtill requires farther elucidation.

I have attempted, in a few caſes, to apply my ideas reſpecting the analyſis of animal fluids to the actual examination of ſome ſubſtances, and I ſhall now proceed to detail my experiments. I muſt premiſe that, in the two firſt analyſes, the ſmall quantity upon which I was obliged to operate prevented me from determining the proportion of the ingredients as accurately as I could have wiſhed. I have nevertheleſs inſerted them, as theſe fluids are not at all times to be procured.

The firſt ſet of experiments which I performed were upon the fluid diſcharged, by puncturing a tumour formed on the ſpine in the diſeaſe which is uſually called *ſpina biſida*.

1. The fluid was colourleſs, ſlightly opake, and gelatinous, of a ſpecific gravity, ſcarcely differing from that of water, and inſipid.

2. It did not affect either litmus or an infuſion of mallows.

3. A hundred grains of the fluid were ſlowly evaporated; a reſiduum was left of 2.2 grains only.

4. When kept for ſome time at the temperature of boiling

water, its opacity was ſlightly increaſed, but it did not exhibit any tendency to coagulation.

5. A ſaturated ſoutlion of the oxymuriate of mercury, when firſt added, produced but little effect; after ſome time, however, an inconſiderable precipitate was thrown down.

6. Infuſion of galls produced a precipitate in ſmall quantity.

7. Aqua lithargyri acetati produced a copious denſe precipitate.

8. By the addition of the nitro-muriate of tin, the fluid was rendered conſiderably more opake, and, as if approaching to coagulation, after ſome time a precipitate was formed.

9. The reſiduum from No. 3. was partly diſſolved by being digeſted in hot water.

10. The water from No. 9. produced a copious precipitate with nitrate of ſilver.

11. It alſo produced a perceptible precipitate with oxalic acid.

12. It alſo produced a ſlight precipitate with the infuſion of galls.

13. A quantity of this fluid, being evaporated very ſlowly, left cubical cryſtals of common ſalt in conſiderable quantity.

From No. 3. we learn that 97.8 parts in 100 conſiſt of water. From 4. and 5. we learn that it contained a little albumen. The quantity was too ſmall to be collected and meaſured by weighing; but, from the viſible effect produced by heat and the oxymuriate of mercury, I ſhould conceive it could not be more than $\frac{1}{100}$ of its weight. From No. 6. and 12. and by comparing 6. with 5. we learn that it contains a minute quantity of jelly. From 7. and 8. eſpecially by comparing them together, we learn that it contains mucus. By comparing 7. and 8. and from 10. to 13. we learn that it contains the muriate of ſoda in conſiderable quantity; and from 11. that it contains a very ſmall trace of lime. The compoſition of the fluid will therefore be nearly as follows:

Water .	97	8	
Muriate of ſoda	1	0	
Albumen	0	5	
Mucus	0	5	Theſe proportions are in ſome meaſure conjectural
Jelly	0	2	
Lime			a very minute quantity
	100	0	

The next fluid that I had an opportunity of examining was the *liquor pericardii*, which was obtained by opening the body of a boy who had died ſuddenly, in order to aſcertain the cauſe of his death. The whole quantity collected was about half an ounce; it was nearly of the colour and appearance of the ſerum of the blood.

1. A quantity of it was ſlowly evaporated, and a reſiduum was left, amounting to $\frac{1}{13}$ of the whole.

2. A quantity of the fluid was kept for ſome time at the heat of boiling water; it became conſiderably opake and gelatinous.

3. A copious precipitate was produced by the oxymuriate of mercury.

4. After the fluid was ſaturated with the oxymuriate of mercury, it produced no precipitate with the infuſion of galls.

5. The nitrate of ſilver produced a precipitate which indicated both animal matter and the muriate of ſoda.

6. A quantity of the coagulated fluid, No. 2. being dried in the temperature of boiling water, was afterwards waſhed with boiling diſtilled water.

7. The water from No. 6. gave no precipitate with the oxymuriate of mercury, nor with galls, but a pretty copious one with the aqua lithargyri acetati.

The ſmall quantity of the fluid which I was able to obtain prevented me from proſecuting the analyſis with more minuteneſs; from theſe experiments, however, we may form ſome idea of its compoſition. From the 1. we learn that it contains 92 of water; from No. 2. and 3. that it contains a conſiderable quantity of albumen, which I ſhould eſtimate at ſomewhat more than $\frac{1}{20}$ of its weight. No. 4. and 7. ſhow that it contained no jelly. No. 7. that it contained mucus; and No. 5. that it contained common ſalt, but the proportion of this latter appeared not very conſiderable. The conſtituents of the liquor pericardii will therefore be,

Water	92	0	
Albumen	5	5	
Mucus	2	0	The proportion of theſe ſubſtances is ſomewhat conjectural
Muriate of ſoda	0	5	
	100	0	

The next analyſis that I attempted was that of the ſaliva; this fluid, in its natural ſtate, is mixed with ſuch variable proportions of water, that it is almoſt impoſſible to fix any ſtandard which can be conſidered even as the average quantity. It is, however, convenient, in obſerving the effects of reagents upon it, to have it in a more diluted ſtate than it uſually occurs; and I accordingly united it, by rubbing in a mortar, with a quantity of diſtilled water, until, by evaporation, 100 grains of the mixture were found to contain two grains of ſolid reſiduum. Upon this mixture the following experiments were performed.

1. The fluid was ſtill opake, and there was an appearance as if ſome flocculent matter were ſuſpended in it.

2. No effect ſeemed to be produced by expoſing it to the boiling temperature.

3. When the oxymuriate of mercury was added, no immediate viſible effect was produced, but, after ſome hours, a light flocculent coagulum ſeparated and fell to the bottom, aving the fluid nearly tranſparent.

4. A portion of the fluid, left for a few days without addition, gradually ſuffered a quantity of matter to ſeparate from it, as in No. 3.; but the ſeparation was leſs complete, and it was much longer in taking place.

5. A quantity of the fluid being paſſed through a filter of bibulous paper, was rendered perfectly tranſparent.

6. The oxymuriate of mercury being added to a quantity of No. 5. a very ſlight precipitate only was produced after ſome time.

7. The addition of the infuſion of galls to No. 1. cauſed a precipitation of white flakes; but, after filtration, the galls produced no effect.

8. The filtered fluid, No. 5. produced a copious precipitate with the aqua lithargyri acetati.

9. It alſo produced a conſiderable precipitate with the nitromuriate of tin.

10. And with the nitrate of ſilver.

11. Equal weights of the fluid, before and after filtration, were ſeparately evaporated, and the amount of the reſiduum being aſcertained, the quantities left were to each other nearly as 12 to 8.

12. The diluted ſaliva, both before and after filtration, ſlightly reddened a paper ſtained with litmus.

From theſe experiments we may draw the following concluſions: From No. 3. it would ſeem that the fluid contains albumen; but it appears from Nos. 1. 2. 4. 5. and 6. that the albumen is not ſoluble in water, but in that ſtate in which it is found after coagulation. From this we learn that it conſtitutes only 0.8 of a grain in 100 grains of the fluid. From No. 7. we learn that there is no jelly; from 8. 9. and 10. that there is a quantity of mucus and muriate of ſoda; and, from comparing theſe with each other, we are led to conclude, that the laſt ſubſtance exiſts only in ſmall quantity. The compoſition of the diluted ſaliva will therefore be nearly as follows:

Water	98	0	
Coagulated albumen	0	8	
Mucus	1	1	The proportion of theſe is partly conjectural
Salts	0	1	
	100	0	

It will, I conceive, be admitted, that the albumen in this ſaliva exiſted in the coagulated ſtate. This I conſider to be decidedly proved from the effects of heat, by its gradual, ſpontaneous depoſition, and by the eaſe with which it was ſeparated by filtration. Still, however, the oxymuriate of mercury and the galls ſhowed that it was albumen. The difficulty of uniting ſaliva with water, and the effects of filtration, were noticed by Dr Fordyce *; but he imagined that the whole of the animal matter was removed by the proceſs. The ſaliva that I employed manifeſted ſlightly acid properties: How far this may be the caſe in general, I am unable to decide. Haller thinks that, in a ſtate of perfect health, the ſaliva is not acid; but, at the ſame time, he quotes a number of authors who are of a contrary opinion †. M. Hapell de la Chenaie informs us, that the ſaliva of the horſe is alkaline ‡.

The quantity of water contained in the ſaliva, as diſcharged from the mouth, is very various. Haller eſtimates it at about $\frac{4}{5}$ of the whole; but Dr Fordyce ſuppoſes that $\frac{1}{12}$ only conſiſts of ſolid matter. If we take the eſtimate of Haller, which is ſanctioned by Fourcroy § and Thomſon ‖, the conſtituents of ſaliva will exiſt in the following proportions:

Water	80	0
Coagulated albumen	8	0
Mucus	11	0
Saline ſubſtances	1	0
	100	0

The quantity of the ſaline ingredients in my analyſis is confeſſedly conjectural; they have been ſtated by Haller to be $\frac{1}{129}$ of the whole. I have not been able to ſatisfy myſelf reſpecting the nature and proportion of the ſalts which compoſe this reſiduum: it has been ſaid to conſiſt of the muriate of ſoda, and the phoſphates of lime and of ſoda ‖.

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* De Catarrho, p. 17.

† El. Phyſ. lib. xviii. ſect. 2. § 10.

‡ Mem. of Med. Soc. for 1780-1, p. 325.

§ Syſteme, ix. 366.

‖ Chemiſtry, iv. 613.

MEDICAL

MEDICAL BIOGRAPHY.

I.

Dr CURRIE.

Lately, at a premature age, but at the height of reputation, died Dr James Currie; a man whoſe abilities were an honour to his country, whoſe death was a loſs to the world. If ſplendid talents, unblemiſhed integrity, and the moſt active philanthropy, can confer immortality on the memory of a man, the name of Currie will live for ever in the records of fame. Whether we contemplate him as an author, as a phyſician, or as a man, we ſhall have equal ſubject for praiſe, equal cauſe for admiration.

His perſon was conſiderably above the middle ſize, his limbs were turned according to the fineſt proportions of nature, his countenance was characterized by an expreſſion of mildneſs, and his eyes ſparkled with intelligence. In his demeanour gentleneſs and dignity were moſt happily blended, and the charm of his manner was irreſiſtible.

The prepoſſeſſion induced by his appearance and addreſs was amply confirmed by a nearer acquaintance. His voice was muſical and impreſſive; his diſcourſe always intereſting, and often uncommonly animated. No one ever quitted his company without regret, or left him without having derived inſtruction of the daily improvements in ſcience: none eſcaped his rapid glance; at one view his comprehenſive mind could appreciate their relative importance, deduce their numerous conſequences, and point out their various applications. Nor did the leſs important productions of taſte or fancy elude his obſervation: upon every topic, therefore, whether uſeful or elegant, whether connected with good or private improvement, his information was accurate and extenſive.

He was gifted with an ample fund of wit and humour; an imagination which could inveſt the moſt trite and unimportant ſubject with the charms of novelty, which perpetually delighted us with new applications of terms, with new combinations of ideas. But the keenneſs of his wit is not ſo much to be extolled as his forbearance in its uſe: never did it ruffle the ingenuous boſom of modeſty, or call up a bluſh in the cheek of innocence.

To the moſt acute diſcrimination of character he added the moſt happy talent of delineating its ſlighteſt ſhades. By a ſingle epithet he could convey the moſt diſtinct and accurate images, and one of his ſentences not unfrequently ſpoke more than volumes.

From a man of ſuch colloquial powers, however we might have lamented, we could not have been ſurpriſed at a ſtudied diſplay of talent, or a dictatorial aſſumption of importance. But ſuch failings were totally foreign to the liberal mind of Currie. Though perſuaſion hung on his lips, and conviction waited on his arguments, yet was he more ready to hear the opinion of others than to propoſe his own; more deſirous of beſtowing applauſe than of exciting admiration. No man, however, was leſs avaricious of knowledge, or communicated his opinions and diſcoveries with greater freedom. Few men have poſſeſſed in ſo eminent a degree the faculty of diſcovering upon what particular ſubjects the information of thoſe with whom he converſed was moſt extenſive, and, certainly no man ever made a more generous uſe of this talent. To draw forth the ability of others, and to diſplay their information to advantage, was to him a ſource of the greateſt pleaſure. He rendered us more pleaſed with ourſelves, at the ſame time that we could not but admit his ſuperiority. We were indeed proud to acknowledge his aſcendance; the admiration excited by his talents was not an extorted tribute, but a willing homage.

If the ſtrength of his genius and the endowments of his intellect were calculated to excite admiration, the virtues of his mind and his moral excellence could not fail to captivate eſteem. He was dignified without pride, unſuſpicious without credulity, candid without imprudence, and generous without oſtentation. To feelings the moſt acute was added the moſt unwearied benevolence. Not content with the inert philanthropy which is occupied in bewailing thoſe miſeries which it ſhould relieve, or deprecating thoſe evils which it ſhould prevent, he was always actively employed in conferring benefit, or in alleviating misfortune. Even when ſtruggling with that diſeaſe which was ſoon to terminate his exiſtence, he has repeatedly forgotten his own miſery to relieve that of others, has repeatedly haſtened to ſnatch another from that grave which was already open to receive himſelf.

That acute ſenſibility which taught him to feel for others induced him to reſpect himſelf. He was ever prompt to repel inſult, but prone to forget injury. It may with juſtice be ſaid, that he had a bad memory for his friends, but not for his enemies. That cheerfulneſs, which was ſo conſpicuous in his diſpoſition, never deſerted him even under the accumulated diſtreſs of his long illneſs. With him it was perpetual, proceeding not from momentary impreſſions, but from the innate conſciouſneſs of rectitude.

The talent for obſervation, which is an indiſpenſable requiſite in the character of an accompliſhed phyſician, was his in a remarkable degree. The clearneſs of his perception, and the accuracy of his judgment, enabled him at once to ſeize the leading features of diſeaſe, to determine its character, and apply its appropriate remedies. As his conception of diſeaſe was diſtinct, ſo was his mode of practice decided. It is no inconſiderable evidence in his favour, that thoſe who commenced his acquaintance as a phyſician clung to him ever after as a friend.

It were needleſs to expatiate on his character as a friend, as a huſband, or as a father. Thoſe affections, which can extend through the wide ſphere of human nature, muſt neceſſarily be uncommonly ſtrong at the centre. The man who contemplates all his fellow-creatures with the eye of benevolence muſt feel acutely towards thoſe whom the ties of conſanguinity have endeared, or whom ſimilar inclinations and purſuits have linked with him in the ſacred bond of friendſhip. Let it not be objected to this ſketch that it is clothed in the unqualified language of panegyric. Thoſe who know the original muſt acknowledge the faintneſs of the reſemblance. Thoſe who are acquainted with his works may commend with warmth; thoſe who know himſelf muſt praiſe with enthuſiaſm.

To inveſt a human being with the attributes of perfection would be more than abſurd; it would be preſumptuous. That Dr Currie had his failings muſt be allowed, but they were the failings of a great mind; they were not of that prominent kind which decide the character, but of that lighter caſt which gently ſhade the glowing tints of excellence. His frailties have left no traces behind them, they ſleep with him in the grave; but his virtues will be for ever freſh in the remembrance of poſterity. "Quicquid ex illo amavimus, quicquid mirati ſumus, manet, manſurumque eſt in animis hominum, in æternitate temporum, fama rerum."

Beſides ſome detached pieces, the principal works of Dr Currie are, Memoirs of Dr Bell (printed in the Mancheſter Memoirs); Med. Reports on the Effects of cold and warm Water; and the Life of Burns.

The life of Dr Bell was compoſed at the deſire of the philoſophical ſociety of Mancheſter, and during the convaleſcence of from a dangerous illneſs. An illneſs, however, which would ſeem rather to have increaſed, than to have impaired, the faculties of his mind. This tribute to the memory of his friend would have done honour to the pen of Tacitus.

The reports on the effects of cold water, as a remedy in fever, were written to recommend a practice of which Dr Currie may in ſtrict juſtice be conſidered as the author. It is true, that in the records of the ancients, and in the writings of the moderns, we occaſionally meet with an account of this practice. But thoſe who employed it did ſo empirically, or without any fixed principles. It remained for Dr Currie to aſcertain its mode of action, to trace its conſequences, and to lay down rules for its application. This he has effected in the moſt maſterly manner. Had Currie not lived, or had he forborne to write, this gigantic remedy might ſtill have lurked in obſcurity, or might have been productive of infinite miſchief, in place of univerſal advantage. At preſent it is morally impoſſible that any one who has read the medical reports can undeſignedly miſapply this remedy.

To arreſt the progreſs of fever, to circumſcribe the range of death, to exterminate diſeaſe, and to nip contagion in the bud, though preſent to our dreams of felicity, would ſeem denied to our waking hopes. As far, however, as theſe objects will admit of attainment, we may expect them from the remedy which Dr Currie has recommended to our notice. He has taught us to diveſt the jail-fever, the ſmall-pox, and the ſcarlet-fever, of moſt of their terrors. It is a ſingular circumſtance in the hiſtory of the latter diſeaſe, that ſo ſhort a time ſhould have elapſed between the diſcovery of its nature and the final perfection in its treatment. A late celebrated coloſſus in medicine gravely propoſed that the diſeaſe ſhould be rendered milder by inoculation; a meaſure, if it could be effected, pregnant with miſchief, and deſtitute of benefit. It is not improbable, that ere long the propoſal may be read, when the complaint is ſcarcely known but by report.

From the analogy with meaſles, and from the caſe of Dr Currie himſelf (related in the 2d volume of the Reports), it is not improbable that the tepid and even the cold affuſion may prove a powerful auxiliary remedy in every diſeaſe in which the temperature of the body is much and preternaturally increaſed. The thermometer is now become as indiſpenſable to the phyſician as to the natural philoſopher. That we owe this additional and valuable guide through the labyrinths of diſeaſe to Currie alone, will ſcarcely be denied even by the voice of envy, or whiſper of detraction.

Though few will be hardy enough to controvert the efficacy of the cold affuſion in many febrile diſeaſes, we muſt lament that the apathy of many has forbidden them to recur to its application. This frigid indifference in private practitioners may be explained, and can ſcarcely excite ſurpriſe: but the ſame neglect in thoſe intruſted with the lives of our brave defenders muſt create a ſtronger emotion.

The reports on the effects of cold water conſtitute one of the moſt elegant as well as uſeful works, in our own or in any language. With a happineſs almoſt peculiar to himſelf, the author has contrived to decorate a medical work with all the graces of a moſt finiſhed ſtyle. Indeed, all his writings are in ſome degree emblematic of his own mind, in which the moſt refined taſte and exquiſite judgment were united to manly vigour and philoſophical accuracy. The diſtinguiſhed excellence of the ſtyle is, however, one of the leaſt recommendations of this invaluable work. The importance of the doctrine, the perſpicuity with which it is delivered, the ingenuity and conſummate ſkill with which it is applied, and the aſtoniſhing ſucceſs reſulting from its practice, all entitle Dr Currie's book to rank among the few which have produced a new era in medicine. Nor is our admiration confined to the new and important facts wlth regard to the application and powers of cold and tepid water. Interſperſed with theſe we find the moſt comprehenſive and enlarged views of diſeaſes, with the moſt important hints with reſpect to their treatment, the moſt judicious criticiſms on prevailing ſyſtems of medicine, with the moſt enlightened efforts towards their improvement. To dwell on this theme would confer infinite pleaſure, but the taſk would be endleſs. Suffice it to obſerve, that the Medical Reports contain an invaluable mine of knowledge, and that they ſhould be in the hands of every ſtudent and practitioner, inſcribed with this injunction, 'Nocturna verſate manu, verſate diurna.'

With the life of Burns few biographical compoſitions can compare, and it is excelled by none. Nor is the attempt to pourtray individual excellence or peculiar character of eaſy attainment. Of thoſe who figure in the page of hiſtory, the excellence of moſt is adventitious, and the luſtre of all is derived from the reflected ſplendour of the events in which they were engaged. We ſeldom follow them into the ſhade of retirement, ſeldom contemplate them in the vale of ſolitude. If, amidſt the brilliant ſucceſſion of public events, our attention is called to the rugged worth of a Cincinnatus, or the milder virtues of an Antonine, we contemplate them with cold approbation, and turn from them without regret. To repreſent characters ſuch as theſe requires indeed ability: but, blended as they are with more dazzling matter, we ſeldom pauſe to admire the portrait, or examine the accuracy of the reſemblance. To rivet our attention to an individual unconnected with public life, to mark the ſtruggles of his genius as he emerges from the gloom of obſcurity, to diſplay the various features of his character, to trace the hidden ſprings of conduct, to delineate his excellence in glowing colours, and to touch with lenient hand his failings—this taſk demands the pencil of a maſter: Such a pencil was that of Currie. Under his magic touch the vices of Burns are ſoftened down into blemiſhes, and his blemiſhes mellowed into beauties. Though rigidly correct in his own conduct, our author was always ready to extenuate the faults of others. Though the luſtre of genius could not miſlead his judgment, he dropped a tear over its frailties, and veiled with pious hand its errors. The misfortunes which imbittered the life of the Scottiſh bard, have been tardily compenſated by the honours paid to his memory. The laurels which encircle the grave of Burns wave over the never-fading flowers planted by the kindred hand of Currie.

This feeble attempt to deſcribe departed worth, though it may alleviate the ſorrow of an individual, is inadequate to the merits of the man whom it would fain commemorate. The vigour of his mind continued to the laſt, and his brilliant talents were only extinguiſhed by the hand of death. It was an affecting ſpectacle to contemplate his mind ſuperior to the devaſtations committed in his form, and towering above the ruins of its earthly fabric. He who could have viewed this ſcene unmoved muſt indeed have been a ſtoic. To ſuch a man as Currie, a biographer cannot long be wanting. To deſcribe his brilliant career, however, would require no common pen. The pleaſing but melancholy taſk ſeems naturally to devolve on one who was dear to him as a friend, and who has already emulated the fame of a Politiano and a Guicciardini.

C. E. B.

1ſt November, 1805.

2

THE INQUIRER, N° IV.

What are the chief diagnoſtic ſymptoms of hydrocephalus internus, and of the diſeaſes which ariſe from worms in the inteſtinal canal?

In no claſs of diſeaſes are the difficulties in forming an accurate diagnoſis greater than in thoſe of children. Even the exanthemata, which have a fixed character, which frequently prevail epidemically, and whoſe ſymptoms are the objects of our ſenſes, are ſometimes confounded with other diſeaſes. Miſtakes of this kind are ſtill more to be dreaded in a diſeaſe like the hydrocephalus internus, where no viſible marks are met with, and which often attacks children who are incapable of expreſſing their feelings. The diſeaſe with which, in its early period, it is moſt frequently confounded, is the diſorder ariſing from worms in the inteſtinal canal; and the celebrated Fothergill owns that three caſes, which he had conceived to be hydrocephalus internus, had been cured ſimply by the uſe of anthelmintic remedies.

In the proſecution of the preſent inquiry it is not intended to enter minutely into the hiſtory of the various ſymptoms of the two diſeaſes under conſideration, but merely to point out the leading features by which they are characterized, and to attend particularly to thoſe from which an accurate diagnoſis may be drawn. It will therefore be proper to give a ſhort account of the moſt uſual phenomena in each, and then to point out thoſe which particularly enable us to diſtinguiſh them.

The ſymptoms of hydrocephalus internus vary conſiderably, particularly on their firſt attack. The diſeaſe is not confined to any particular age, but moſt frequently attacks children under 12 or 14 years of age. It begins ſometimes ſuddenly, without any previous warning, in the form of a common fever; or its progreſs is ſlow, like a chronic diſeaſe, and its attack is firſt announced by ſome affection of the head. In the firſt caſe it uſually affects the healthieſt, ſtouteſt, and moſt lively children, rarely under two or three years of age. It does not confine itſelf to any particular conſtitution, although there have been inſtances of ſeveral children of the ſame family dying of it. An attentive obſerver will often ſuſpect its approach ſeveral days previous to the attack, from a tottering or ſtumbling on even ground, and from a peculiar walk of the child, where the limbs do not ſeem to be lamed, but refuſe to perform their natural office, the child lifting them up high, and taking long ſteps, without complaining of any uneaſy ſenſation. Theſe appearances are ſoon followed by the true morbid affections, ſuch as the feveriſh ſtate, intolerance of light, and pain of the head; the child frequently exclaiming, Oh! my head, my head! Vomiting now comes on; there is conſtant reſtleſſneſs and drowſineſs, which, uſually in the courſe of four or five days, is changed into complete ſopor, during which the child, from time to time, utters a ſhort piercing ſcream, expreſſive of great pain, without being able to aſſign any reaſon for it. It is even ſometimes difficult to aſcertain whether there is any pain in the head, although, in moſt caſes, it may be preſumed that there is, from the child frequently reaching his hand towards the head and eyes, as if to remove ſomething away from them. One arm often appears weak and unable to perform the uſual voluntary motions, and a ſimilar numbneſs ſometimes affects one ſide of the body. If the patient is rouſed during this ſtate of ſtupor or drowſineſs, the very moment he awakes he again ſinks into ſleep, and he cannot be kept long awake; he anſwers correctly, but ſlowly, and always with monoſyllables: he will take food if offered, but is extremely peeviſh and fretful when diſturbed during his ſleep to take any medicine. If the patient opens his eyes in this ſtage (which ſeldom happens), the pupils are found unuſually dilated, frequently in different degrees; ſometimes there is ſtrabiſmus, and always an averſion to light: total blindneſs often follows later in the diſeaſe, and then the eyes remain always open. If the patient lies ſtill for a while, he may be obſerved to ſigh deeply, or to draw his breath alternately, ſlowly and quickly. He always lies in a horizontal poſture, with the head low, and never riſes up. The bowels are at this period, and alſo later, ſo coſtive, that even draſtic medicines have no effect. In the courſe of a few days the drowſineſs and ſtupor paſs into a ſtate of complete coma and inſenſibility; the pulſe, which had hitherto been quick, becomes not only irregular, but alſo much ſlower than in the natural ſtate. The ſlowneſs of the pulſe continues from 8 to 14 days, till the laſt period of the diſeaſe, when it again increaſes in frequency, and becomes ſo quick that it cannot be counted; the cheeks acquire a hectic fluſh, and the patient is uſually carried off in a general convulſion. The duration of this form of the diſeaſe is commonly about 14 days or three weeks, and, in very young children, the progreſs is ſtill more rapid.

When the diſeaſe is more of a chronic nature, it is preceded for two or three weeks by a ſlight pain of the head; the child continues to go about, but gradually loſes his livelineſs and ſpirits; ſo that it is not eaſy to fix the preciſe beginning of the diſeaſe: he ſoon takes to bed, and by and by, though rather later than in the preceding ſpecies, he falls into the comatoſe ſtate, which is ſoon followed by the other ſymptoms already enumerated.

In the laſt period of the diſeaſe there appears a white raſh of ſmall and almoſt imperceptible veſicles, about the ſize of a millet ſeed, filled with a thin tranſparent fluid, principally over the forehead, breaſt, and temples, and this is is conſidered by ſome writers as a certain mark of approaching death.

Notwithſtanding the many ſymptoms here pointed out of the preſence of a watery fluid in the cavities of the brain, it is not to be underſtood that any one of them ſingly is to be conſidered as ſufficient to mark its exiſtence; but it is only from their combination that we can draw a poſitive concluſion.

The marks of the preſence of worms in the human body are often obſcure and equivocal, as ſeveral of the ſymptoms by which they are commonly indicated may alſo ariſe from very different cauſes; it alſo not unfrequently happens that worms are diſcharged by patients who have never ſhowed any marks of having been affected by them; their evacuation, either by the anus or mouth, being the only circumſtance which can remove every uncertainty with regard to their preſence. Certain morbid phenomena, however, offer themſelves, which, when carefully obſerved and contraſted together, at leaſt inform the phyſician of the probability of their exiſtence.

In perſons affected with worms, the natural colour of the face is altered, ſometimes becoming red, ſometimes pale, ſometimes ſaturnine, and frequently changing ſuddenly: the eyes loſe their natural vivacity, are uſually directed to one object, become languid and dull, and the pupils are evidently dilated, the noſtrils are affected with an inſupportable itching, and the alæ naſi and upper lip are evidently ſwelled. There are frequent and violent pains in the head, eſpecially after eating: the mouth is uſually filled with ſaliva, and the breath is remarkably fetid: the ſleep is diſturbed and uneaſy, and frequently the patient is obſerved to grind his teeth: the pulſe is firm, quick, and intermitting; the abdomen becomes ſwelled and hard, and there is generally nauſea and vomiting; ſometimes there is no appetite, at other times it is preternaturally increaſed: the belly is affected with ſevere pain, and the patient complains of a feeling of tearing or pricking diffuſed over the whole abdomen, increaſing when the ſtomach is empty, and becoming eaſier, or even diſappearing entirely, after taking food. The patient waſtes away, and becomes quite emaciated, notwithſtanding the quantity he eats; he is frequently affected with a teneſmus, or a diſagreeable itching at the anus; and, laſtly, general liſtleſſneſs, anxiety, and languor, pervade every action.

Although the ſymptoms enumerated may appear ſufficiently ſatisfactory, yet they ſo rarely appear in any regular order or connexion, and worms are ſo frequently diſcharged in caſes in which they were not ſuſpected to exiſt, and have ſo often been ſought for in vain in children ſuppoſed to have died from them, as to render it neceſſary to contraſt particularly the leading ſymptoms, in order to mark ſtill more clearly their diſtinction.

In the *firſt* place, then, in hydrocephalus internus, the ſymptoms continue uninterrupted for ſome time, particularly the drowſy ſtate and the headach. Where worms are the cauſe of the diſorder, their duration is not ſo long, and there are frequent intermiſſions of weeks or months, during which the child complains, from time to time, of pain in the belly, which is generally ſwelled and hard. This laſt affection always occurs in hydrocephalus internus, except when it is complicated with worms.

2. Spaſmodic affections and general convulſions are much more frequent attendants of worms, and ſeldom occur in the early ſtage of hydrocephalus, unleſs the children have been previouſly ſubject to them. In the firſt caſe they are uſually of ſhort duration, but in the latter they continue often without ceaſing before death; and it is a rare circumſtance that a child dies in convulſions from worms, without being affected with ſome other diſeaſe.

3. In the diſorders from worms, although the pupils are dilated, it is not attended with any averſion to light, which is a conſtant ſymptom in hydrocephalus internus.

4. The very obſtinate coſtiveneſs, which does not yield even to the ſtrongeſt purgatives, is a conſtant ſymptom in hydrocephalus internus; whereas an oppoſite ſtate, or that of chronic diarrhœa, is one of the moſt unequivocal ſymptoms of worms.

5. In worms there is almoſt conſtantly the itching of the noſe, which we never obſerve in hydrocephalus internus, while the tottering and unuſual manner of walking is univerſally confined to the latter.

J. H. W.

PART II.

CRITICAL ANALYSIS.

I.

Deſcription and Treatment of Cutaneous Diſeaſes, Order I. II. and part of III. By Robert Willan, M.D. F.A.S. 4to. 1798, 1801, 1805. Johnſon.

This department of medicine has long been in need of cultivation. From the times of the Greek and Arabian phyſicians a perpetual confuſion has prevailed in the deſcriptions and appellations of cutaneous eruptions, which has not only retarded the inveſtigations of their nature and peculiarities, and of the mode of treatment adapted to each, but has contributed to render the communication of improvement almoſt abortive. The ſame diſeaſes have been deſcribed again and again as new and unknown to preceding writers, until their ſynonimes have been multiplied without end, and involved in the utmoſt perplexity; and remedies, which were recommended for one variety of diſeaſe, have been erroneouſly adminiſtered in others, and thence diſcarded as hurtful or inefficacious. Obſcurity again has ſubſequently ariſen from the oppoſite extreme. The difficulty of obtaining clear ideas of ſuch an infinite variety of eruptions, has led to the uſe of a few indefinite general terms, under which almoſt all the chronic ſpecies are compriſed without diſcrimination; and hence diſcrimination in the exhibition of remedies is impracticable.

The labour of unravelling this intricacy, and affording definite notions of the diſeaſes in queſtion by means of a ſyſtematic arrangement, and thus, at leaſt, of facilitating the path for farther inveſtigation, is the uſeful taſk which the author has enjoined himſelf. Difficulties, indeed, will neceſſarily occur in the diagnoſis of cutaneous affections, in conſequence of the ſlight ſhades of difference which exiſt between different ſpecies, the varieties of their appearance in different ſtages of their progreſs, and their occaſional combination, and even actual tranſition or converſion one into another. And theſe circumſtances, as well as the general ſimilarity of treatment, may perhaps ſuggeſt doubts as to the eſſential difference of many of the genera here diſtinguiſhed, and a probability that the experience which may ariſe out of this arrangement will lead to a ſtill farther ſimplification. Convinced, however, of the importance of ſuch an arrangement, founded upon ſimple and obvious reſemblances, we apprehend that we cannot better fulfil our duty to our readers than by occupying a few pages with a retroſpective analyſis of thoſe parts of the ſyſtem which appeared prior to the commencement of our Journal.

In forming his arrangement wholly upon external appearances, Dr Willan is neceſſarily led to ſeparate ſome *genera* which would be ranged together in a ſyſtem of "natural orders," and to connect others which, in ſuch a ſyſtem, would be ſeparated. Although greater and eſſential analogies are thus, in many inſtances, overlooked, yet a practical facility of diſtinction is obtained with greater certainty than by the other method, as is well illuſtrated in the ſcience of natural hiſtory by the artificial ſyſtem of Linnæus. Dr W. divides the claſs of cutaneous diſeaſes into eight orders, characterized by the different appearances of pimples, ſcales, raſhes, &c. as follows;

Ord. I. PAPULÆ.
Strophulus (*red gum, tooth eruption, &c.*
Lichen (*spring eruption, scorbutic pimples, &c,*
Prurigo (*gratelle, or universal itching of the skin.*)

Ord. II. SQUAMÆ.
Lepra (*leprosy of the Greeks.*)
Psoriasis (*dry or scaly tetter.*)
Pityriasis (*dandriff.*)
Icthyosis (*fish-skin.*)

Ord. III. EXANTHEMATA.
Rubeola (*measles.*)
Scarlatina (*scarlet-fever.*)
Urticaria (*nettle-rash.*)
Roseola (*rose-rash.*)
Iris (*rainbow-rash.*)
Purpura (*purple or scorbutic-rash.*)
Erythema (*red-rash.*)

Ord. IV. BULLÆ.
Erysipelas (*St Anthony's fire.*)
Pemphigus (*vesicular fever.*)
Pompholyx (*water-blebs.*

Ord. V. VESICULÆ.
Herpes (*ringworm, shingles, wild-fire, &c.*
Varicella (*chicken-pox and swine-pox.*)
Miliaria (*miliary eruptions.*)
Eczema (*heat eruptions.*)
Aphthæ (*thrush.*)

Ord. VI. PUSTULÆ.
Impetigo (*running tetter.*)
Ecthyma (*large inflamed pustules.*)
Variola (*small-pox and cow-pox.*)
Scabies (*itch.*)
Porrigo (*scald-head, honeycomb scab, &c.*)

Ord. VII. TUBERCULÆ.
Phyma (*boils, carbuncles, &c.*)
Verruca (*warts.*)
Molluscum (*small, soft wens.*)
Vitiligo (*white smooth tubercles.*)
Acne (*stone-pock; red, tuberculated face, &c.*)
Lupus (*noli me tangere.*)
Elephantiasis (*Arabian leprosy.*)
Frambœsia (*yaws.*)

Ord. VIII. MACULÆ.
Ephelis (*sun-spots.*)
Nævus
Spilus (*moles, and other original marks.*)

The parts already publiſhed contain an account of the genera belonging to the firſt and ſecond orders, and the two firſt genera of the third order only. We ſhall paſs briefly over thoſe which are of trivial importance.

The term *papula*, which deſignates the firſt order, has been uſed by medical writers in various ſignifications; ſome applying it to puſtules of various ſorts; and others including under it wheals, *acores*, *vari*, &c. Dr Willan defines the term "a very ſmall and acuminated elevation of the cuticle, with an inflamed baſe, not containing a fluid, not tending to ſuppuration." Def. V. page 15. With this limitation it will include only three genera, ſtrophulus, lichen, and prurigo.

The STROPHULUS is a papulous eruption peculiar to infants; the author has obſerved five varieties of it: 1. S. *Intertinctus*, the red gum; 2. S. *Albidus*, a variety of the former, ſometimes called white gum. Theſe appear occaſionally in the ſtrongeſt children, unconnected apparently with conſtitutional diſeaſe. If ſuddenly repelled, however, they have been obſerved to be followed by diarrhœa, vomiting, and ſpaſmodic affections of the bowels. They require little treatment, except daily ablutions of the ſkin in tepid water, and the warm bath, in caſe of repulſion. 3. S. *Confertus*, tooth-raſh, or rank red gum. 4. S. *Volaticus*, characterized by ſmall circular patches of from ſix to twelve papulæ, which, in about four days, turn brown, and begin to exfoliate. Succeſſive patches often continue to appear at a ſmall diſtance from each other, ſpreading gradually over the face, body, and limbs, for the ſpace of three or four weeks, ſometimes attended with a quick pulſe, white tongue, and fretfulneſs; but often without any appearance of internal diſorder. A gentle emetic, or ſome laxative medicine, followed by decoction of cinchona, is uſeful. 5. S. *Candidus*, conſiſting of large ſhining papulæ, ſucceeds ſome of the acute diſeaſes of infants, but is of ſhort duration.

Gen. II. LICHEN. The term *lichen*, which was originally employed by Hippocrates to expreſs an eruption of papulæ, was uſed by the later Greek authors in a more extenſive and indefinite ſenſe. Pliny, all the tranſlators of the Greek writers, and ſeveral modern authors of credit, have uſed the term impetigo as ſynonymous with lichen; but this is not warranted by the definition of impetigo given by Celſus. By Sauvages, Lorry, Mercurialis, &c. the word lichen has been applied to other eruptions, which have ſtill leſs affinity with the *papular* diſeaſe than with impetigo. In conformity to the original ſenſe of the word, Dr Willan defines lichen "an extenſive eruption of papulæ affecting adults, connected with internal diſorder, uſually terminating in ſcurf, recurrent, not contagious." P. 40. He deſcribes five varieties of it.

1. L. *Simplex.* An eruption of papulæ, preceded by ſymptoms of irritation, commencing on the cheeks and chin, and extending downwards, accompanied with an unpleaſant ſenſation of tingling; the cuticle ſeparates in ſcurfy ſcales. Its duration is various. It occurs chiefly in ſummer and autumn, in weak and irritable habits, attacking women more frequently than men. It paſſes often into the dry tetter, as was obſerved by Galen. The diagnoſis of this ſpecies is ſometimes very difficult. It is often miſtaken for meaſles, ſcarlatina, and other diſeaſes of the order Exanthemata: but by attending to the definitions of *papula* and *exanthema*, which are previouſly given, Dr W. affirms that ſuch errors may be avoided. It would ſeem, however, to require an unuſual accuracy of *taƈt* to be able to avoid thoſe errors in all caſes, where we are left to this one circumſtance of diſcrimination, that the elevations of the cuticle, which conſtitute papulæ, are "acuminated;" thoſe which take place in exanthema are "not acuminated," (Vide Def. V. and VI. p. 13.) The moſt difficult diſtinƈtion, however, is that of the lichen from ſcabies, or itch, which the author defers till he comes to treat of the latter in the order of *Puſtulæ*.

2. L. *Agrius* is alſo preceded for ſeveral days by febrile ſymptoms which are often relieved on the appearance of the eruption. The papulæ are diſtributed in cluſters, or large patches, are of a ſtrong red colour, and ſurrounded by a diffuſive inflammation or redneſs to a conſiderable extent; and are accompanied with itching heat and a painful tingling. A ſtrong ſenſation is produced by the heat of the bed, by waſhing, eſpecially with ſoap, by great exerciſe, or by drinking wine. If it be ſuddenly repelled by improper applications or expoſure to cold, a violent diſorder of the conſtitution conſtantly enſues. By much rubbing or ſcratching, cracks and ulcerated ſurfaces are produced, which are not readily healed by medicinal applications. The complaint is uſually obſerved in thoſe who have undergone long-continued fatigue, watching, and anxiety.

3. L. *Pilaris.* A modification of the firſt ſpecies; the papula appearing only at the roots of the hair.

"For the lichen ſimplex and L. pilaris but little medicinal treatment is neceſſary. It is ſufficient that patients avoid heating themſelves by much exerciſe, or by ſtimulants, and take a light diet, with mild cooling liquors, and ſome gentle laxatives occaſionally." P. 53. Strong external applications are for the moſt part improper. "The L. agrius often requires a more aƈtive mode of praƈtice. It is uſeful to give at intervals two or three moderate doſes of calomel as a purgative; and afterwards, for ſome weeks, the vitriolic acid, three times a day, in the infuſion of roſes, with a decoction of Peruvian bark," P. 54. A mild cooling unguent, ſuch as the roſe pomatum, will allay the troubleſome heat and itching.

4. L. *Lividus.* So called from the colour of the papulæ. It ſeems to be a modification of purpura, or petechiæ ſine febre. It is readily cured by nouriſhing food, exerciſe, bark, with vitriolic acid, or tincture of muriated ſteel.

An eruption, ſimilar to the L. lividus, often occurs as one of the ſecondary ſymptoms of ſyphilis. In this caſe, however, the papulæ are ſmaller, more numerous, and more generally diffuſed; they ſeldom become ſcurfy, never diſappear ſpontaneouſly, but they aſſume a puſtular form in cluſters, and end in ulcerations, only to be healed by a mercurial courſe.

5. L. *Tropicus*, or prickly heat. A papulous eruption almoſt univerſally affecting Europeans ſettled in tropical climates; of which Dr Willan has given a long account from Dr Winterbottom and others, and from the writings of Bontius, Drs Hillary, Clark, Moſely, and Cleghorn.

The third and laſt genus of the papulous eruptions Dr W. denominates PRURIGO; a term which is employed in the ſame ſenſe by Pliny, and by Ingraſſias, Mercurialis, Hafenreffer, and others. "The ſymptom of itching," Dr W. obſerves, "is common, in a greater or leſs degree, to moſt diſeaſes of the ſkin; but there are ſome caſes in which it occurs as the leading circumſtance, and is, at the ſame time, accompanied with an eruption of papulæ, the colour of which ſcarcely exceeds that of the adjoining cuticle, and, with other appearances, ſufficiently particular to conſtitute a diſtinct and independent genus of diſeaſe." 71. As this is the only definition which the author has given of the genus Prurigo, it is probable that he conſiders the colour of the papulæ as the moſt eſſential characteriſtic of it, eſpecially in diſtinguiſhing it from the preceding genus Lichen. He deſcribes three varieties, which generally affect the whole ſkin, beſides ſeveral local varieties.

1. P. *Mitis* is a diſeaſe of the ſpring or beginning of ſummer, and moſtly affects young perſons. It is characterized by ſoft and ſmooth elevations of the cuticle, ſomewhat larger than the papulæ of the lichen, retaining the uſual colour of the ſkin, and accompanied, not with tingling, but with an almoſt inceſſant itching. When the tops of the papulæ are rubbed off, a clear fluid oozes out of them, and gradually concretes into thin and minute black ſcabs. In plate VII. we have a very accurate repreſentation of theſe black ſpots, ſurrounded by a circle of red, very much reſembling the bites of inſects. When perſons affected with it neglect waſhing the ſkin, or are uncleanly in their

apparel, the eruption grows more inveterate, and at length, changing its form, often terminates in the itch. Puſtules ariſe among the papulæ, ſome filled with lymph, others with pus; the acarus ſcabiei begins to breed in the furrows of the cuticle, and the diſorder becomes contagious."

Frequent bathing, or waſhing with tepid water, perſiſted in regularly, even though ſome aggravation of ſymptoms ſhould at firſt be occaſioned by it, is the ſimple remedy for this ſpecies. When it has become puſtular, and loſt its original characteriſtics, the remedies of the itch of courſe become neceſſary.

2. P. *Formicans* is much more obſtinate and troubleſome than the preceding. It affects adults at all ſeaſons, and its duration is from four months to two or three years. The itching is inceſſant, and almoſt intolerable, and is complicated with various other ſenſations. "They ſometimes feel as if ſmall inſects were creeping on the ſkin; ſometimes as if ſtung all over with ants; ſometimes as if hot needles were piercing the ſkin in divers places." This complaint is not often obviouſly connected with a diſorder of the ſtomach, yet it occurs moſt frequently in thoſe of ſallow complexions and weak habits, and ſeems to be excited by grief, watching, fatigue, and poor diet, as well as by want of cleanlineſs. It is never, like the former ſpecies, converted into the itch, but occaſionally terminates in a non-contagious puſtular diſeaſe, the impetigo. It is commonly, however, confounded with the itch by practitioners, and deemed contagious.

It is extremely difficult to relieve the prurigo formicans either by external or internal remedies; and Dr W. obſerves, that he has experienced many diſappointments from the inefficacy of medicines recommended on the beſt authority. "Antimonials and preparations of mercury, given ſeparately or combined, produced no beneficial effect; the former, indeed, very generally aggravated the complaint. Neutral ſalts, and other remedies, adminiſtered as diaphoretics, were attended with as little ſucceſs. The diet-drinks uſually employed in cutaneous diſeaſes contributed to allay the troubleſome ſenſation of itching; but as little difference was perceptible in their reſpective effects, perhaps more may be attributed to the watery vehicle than to the virtues of the impregnating ingredients. Vitriolic acid, ſulphur, æthiops mineral, and cinnabar, I tried in a variety of caſes for a conſiderable length of time, without obſerving any permanent advantage from them.

"Fixed alkali ſeemed to anſwer better than any of the above remedies. I employed the natron præparatum of the London Diſpenſatory, ſometimes alone, ſometimes in combination with ſulphur; at the ſame time, an infuſion of ſaſafras, or the tops of juniper, tice of the preſent times; but frequent bathing or waſhing is the external remedy moſt eſſentially neceſſary for the two firſt ſpecies of lepra;" eſpecially in the ſulphur-waters of Harrowgate, &c. or in baths prepared with a ſolution of alkalized ſulphur and marine ſalt.

" Bathing in ſea-water may be mentioned as a certain auxiliary in the cure of lepra. It is uſual, and ſeems proper, firſt to uſe a bath of warm ſea-water till the ſkin be ſoftened, and the ſcaly incruſtations removed; after which a cure is ſoon obtained, eſpecially in young perſons, by bathing in the open ſea." But, to prevent a recurrence, this muſt be perſevered in for ſeveral ſummers.

" A ſimple warm bath, along with moderate friction, likewiſe contributes to remove the ſcales, and to produce a ſoft red ſkin, which, in time, regains the uſual colour and texture. This plan is ſufficient, in ſlighter caſes of lepra, without the uſe of internal remedies. If the diſeaſe affect the extremities only, bathing of the whole body is not neceſſary; it may be enough to apply ſteam or warm water frequently to the diſordered parts.

" Of the mercurial preparations applied externally, a watery inſolution of ſublimate, and the unguentum hydrargyri nitrati, (Ph. Lond.), ſeem moſt efficacious in removing the leprous cruſts, and ſoftening the cuticle. I do not, however, think the latter preferable to the tar-ointment which Dr Willis has ſo juſtly recommended."

" For the lepra, when confirmed and inveterate, a variety of internal remedies have been employed, or recommended by medical writers, reſpecting ſome of which I have had occaſion to remark,

" 1*ſt*, That antimonials, ſulphur, and nitre, have not alone any conſiderable efficacy.

" 2*dly*, That decoctions of emollient herbs, of guaiacum-wood, ſarſaparilla, mezereon, or of elm-bark, which have been recommended as ſpecifics, by no means deſerve that character.

" 3*dly*, That calomel, hydrargyrus calcinatus, pilulæ hydrargyri, or mercurial frictions applied ſo as to produce ſalivation, do not remove the diſeaſe. The only preparation of this mineral, which makes any impreſſion upon the lepra, is the ſublimate or hydrargyrus muriatus. The ſpirituous ſolution of it in ſmall doſes, continued for a length of time, will be found very uſeful; and its operation is promoted by giving, at the ſame time, an antimonial, and ſome of the decoctions above mentioned.

" 4*thly*, That the nitrous and marine acids, lately recommended in obſtinate cutaneous eruptions, have been given in the lepra during three or four ſucceſſive months, without any manifeſt advantage. I have often, however, experienced the moſt beneficial effects in this diſeaſe from a medicine of an oppoſite quality, the cauſtic alkali, or aqua kali puri of the Diſpenſatory. The doſe of it is about 30 drops, which may be given thrice a-day, in a cupful of any mild fluid."—P. 138, et ſeq.

Dr W. has ſeen no advantage from the tinct. of cantharides; but he is of opinion that the tinct. of black hellebore, if the doſe be regulated ſo as not to diſorder the bowels, has ſome efficacy. He introduces a communication from Dr Crichton on the uſe of the ſolanum dulcamara in lepra, which is ſaid to have effected a cure, in Dr C.'s practice, of 21 caſes in 23. He employed the following decoction:

℞. Stipitum Dulcamaræ unciam i.
Aquæ puræ libram iſſ. decoque ad libram i.; et liquorem frigefactum cola.

Dr Crichton ordered two ounces of this decoction every morning, noon, and evening; but afterwards increaſed the quantity, till the pint was conſumed daily.

"None of the remedies above mentioned are applicable to the cure of the lepra nigricans. This form of the diſeaſe requires, in the firſt place, a regular and nutritive plan of diet, with moderate exerciſe: it may be afterwards wholly removed by the uſe of bark, and the mineral acids, ſea-bathing," &c.

The ſecond genus of this order is the Psoriasis, dry or ſcaly tetter. The Greek phyſicians have deſcribed two different diſeaſes under the title of Pſora, viz. Ψωρα ελκωδης, ulcerated Pſora, and ψωρα ſimply, or ſometimes leprous Pſora, which is a ſcaly diſeaſe. Dr Willan refers the former to the puſtular order (gen. impetigo), and adopts the term Pſoriaſis for the ſcaly Pſora. "The diſeaſe to be thus entitled is characterized by a rough and ſcaly ſtate of the cuticle, ſometimes continuous, ſometimes in ſeparate patches of various ſizes, but of an irregular figure, and, for the moſt part, accompanied with rhagades or fiſſures in the ſkin. From the lepra it may be diſtinguiſhed, not only by the different form and diſtribution of the patches, as formerly ſtated from the Greek writers, but alſo by its ceſſation and recurrence at certain ſeaſons, and by the diſorder of the conſtitution with which it is uſually attended." It is ſynonymous with the Pſora or Scabies ſicca of Mercurialis, Platerus, Haſenreffer, Etmuller, and Hoffmann; and with the impetigo of Sennertus, Willis, Lommius, Plenck, &c. Dr Willan deſcribes ſeveral ſtriking varieties of the Pſoriaſis, which, however, he obſerves, might be all compriſed in a connected detail; theſe are P. *guttata, diffuſa, gyrata, palmaria, labialis, infantilis,* and *inveterata.*

The baker's itch, and a ſimilar eruption peculiar to waſherwomen, rank under P. diffuſa.

The ſcaly tetter is not contagious in any of its forms. It is moſt frequently ſeen in ſanguineo-melancholic habits, and ſometimes is connected or alternates with arthritic complaints, as was remarked by Galen. The circumſtances to which patients have generally referred the complaint are, eating too great a quantity of acid fruits, food of difficult digeſtion, or ſome improper mixtures of food, as of milk and fiſh, the unſeaſonable uſe of the cold bath, and large draughts of cold water taken when the body has been heated by exerciſe. Dr Falconer, " whoſe obſervations on the lepra Græcorum are more directly applicable to the preſent diſorder," affirms that he has been able, in numerous inſtances, to trace the cauſe of theſe eruptions to the laſt-mentioned circumſtance.

The pſoriaſis is one of the moſt frequent cutaneous diſeaſes in this kingdom; and Dr Willan acknowledges with Willis, that it is ſometimes a diſeaſe of unconquerable obſtinacy. With reſpect to the treatment recommended by Dr Willis, the author obſerves, *1ſt*, That bleeding and purgations are ſeldom admiſſible; *2d*, That antiſcorbutics, as they have been called, are not of any material uſe; *3d*, That decoctions of guaiacum, ſarſaparilla, &c. cannot alone be depended upon for the cure of pſoriaſis, but are uſeful auxiliaries to other medicines in ſome ſtages of the P. diffuſa, palmaria, and inveterata; *4th*, That the chalybeate waters, which have been called ſpecifics, do not ſeem to be more efficacious than the ſulphureous waters; *5th*, That chalybeate medicines, eſpecially ferrum præcipitatum, are perhaps occaſionally uſeful where the eruptions occur in chlorotic habits; and, *6th*, From many experiments cautiouſly made, he is aſſured, that *mercurial preparations eventually rather aggravate than diminiſh the complaint*: an important obſervation, conſidering the indiſcriminate uſe which is made of mercury for diſeaſes of the ſkin.

" The three firſt ſpecies of Pſoriaſis, (viz. P. guttata, diffuſa, and gyrata), when they appear in a ſudden eruption, attended with febrile ſymptoms, may be advantageouſly treated by adminiſtering in the evening an emetic doſe of ipecacuanha, and the following day two or three grains of calomel, or ſome other gentle purgative; afterwards by the uſe of fixed alkali, either in its concrete or liquid form, by a light moderate diet, by frequently waſhing with tepid water, and by abſtinence from fruits, acids, and fermented liquors, the above diſorders may be brought to a concluſion within two or three weeks. But ſhould the ſcaly patches, through neglect at their firſt appearance, or from an unhealthy ſtate of the conſtitution, have enlarged conſiderably, and ſpread over the greater part of the body, a more elaborate plan will be neceſſary. This conſiſts of the free uſe of antimonials, of the warm bath, with repeated friction, and of the mineral waters formerly mentioned. The decoctions of elm-bark, ſarſaparilla, dulcamara, &c. have alſo their ſhare of utility.

"The P. inveterata requires the ſame plan of treatment as the lepra vulgaris and alphos. A portion of mezereon root forms an active ingredient in the decoctions employed for the cure of theſe diſorders."

In the P. palmaria, Dr W. recommends the uſe of oiled ſilk gloves, to be worn during the night, and as much as poſſible during the day; the internal remedies being alſo employed. In the P. labialis, the lips ſhould be almoſt conſtantly covered with ſome mild unguent or plaiſter: all acrid applications are detrimental.

Several ſyphilitic eruptions aſſume the forms of lepra and pſoriaſis, of which good repreſentations will be found in the coloured engravings.

The third genus, PITYRIASIS, is a diſeaſe of little conſequence, but ſhould be known, becauſe it has been miſtaken for a ſyphilitic eruption, in conſequence of its brown colour. It conſiſts of irregular patches of ſmall thin ſcales, which repeatedly form and ſeparate, but never collect into cruſts, nor are attended with redneſs or inflammation, as in the lepra and ſcaly tetter. No remedy is deciſively beneficial. Its cauſes are unknown. It ſometimes continues for five or ſix years.

The remaining genus, ICTHYOSIS, or fiſh-ſkin eruption, is a rare diſeaſe, and its cauſes and cure ſeem to be equally unknown. It is characterized by "a permanently harſh, dry, ſcaly, and, in ſome caſes, almoſt horny texture of the integuments of the body, unconnected with internal diſorder." The author relates or refers to a few caſes given by other writers.—See Philoſ. Tranſact. N° 424, and the ſequel, vol. 49th, for 1755.

Under the denomination of icthyoſis *cornea*, he deſcribes ſome caſes of horny rigidity of the integuments, or horny excreſcences, which have been ſaid to appear on different parts of the body. See Phil. Tranſ. vol. 48th, part 2. p. 580.; and an account of a girl, whoſe body was nearly covered with horny excreſcences, *ibid.* N° 176. It may be added, that a horn ſimilar to thoſe here deſcribed, and a drawing of the woman on whom it grew, are preſerved in the Britiſh Muſeum.

Twelve excellent coloured engravings are given to illuſtrate the diſeaſes of this order.

Having extended our analyſis of the preceding orders to a great length, we ſhall be compelled to contract our account of the firſt part of Order III. which has lately appeared. It includes only the two firſt genera, meaſles and ſcarlet fever.

I. Rubeola, or Meaſles. Dr Willan gives an ample and accurate account of the progreſſive ſymptoms of meaſles, of which he deſcribes three varieties, R. vulgaris, R. ſine catarrho, and R. nigra. When the diſeaſe is epidemical, he obſerves, a few caſes occur in which the eruption goes through its different ſtages, without any cough, difficulty of breathing, or inflammation of the eyes; without much alteration in the pulſe, or any febrile ſymptoms. This variety of the complaint does not ſeem to emancipate the conſtitution from the power of the contagion, nor to prevent the acceſſion of the rubeola vulgaris at a future period. It is not eaſy, he adds, to collect from authors, who have mentioned ſome recurrence of the meaſles, under what circumſtances it happened. But, after an attentive obſervation of more than twenty years, he has never met with any individual who had the febrile rubeola twice.—See the author's Reports on Diſeaſes in London, p. 106. and 207.) With repect to R. nigra, he ſays, " I never ſaw the R. vulgaris intermixed at an early period with petechiæ; but it ſometimes happens, about the 7th or 8th day, that the ruſh becomes ſuddenly black, or of a dark purple colour, with a mixture of yellow, (repreſented by a plate). This appearance has continued ten days, and in ſome caſes longer, without much diſtreſs to the patient." Dr W. ſubjoins ſome ſatisfactory obſervations relative to the " putrid meaſles," deſcribed by Sir William Watſon (Med. Obſ. vol. iv.), as having occurred at the Foundling Hoſpital in 1763 and 1768. From the evidence which he adduces, as well as from the ſymptoms enumerated by Dr Watſon, and from the names which he at different times applied to the diſeaſe in the hoſpital-books, as from the accounts of contemporary writers, it is obvious that theſe epidemics were the ſcarlatina anginoſa or Maligna. Sir William refers them to the morbilli maligni or epidemii of Morton. But Morton maintained expreſsly that the meaſles and ſcarlatina are the ſame diſeaſe.

II. Scarlatina. To this diſeaſe, which was, during the ſpace of two centuries, the moſt fatal epidemic of Europe, and which has been the ſubject of much diſcuſſion, under an infinity of names, Dr Willan has appropriated nearly three-fourths of the *Part* before us. He has given a full and minute account of all the regular and anomalous appearances connected with the diſeaſe in its different forms; and has traced its progreſs through the different countries of Europe, in which it has ſucceſſively raged, with much reſearch and diſcrimination, amid the confuſion of titles under which it has been deſcribed. Of its origin, as of that of the meaſles, no trace is to be found in the writings of phyſicians. The ſymptoms of ſcarlatina maligna, indeed, do not ſeem to differ materially from the "peſtilential ulcers of the tonſils," deſcribed by ancient authors, as peculiar to Egypt and Syria. Rhazes and others obſerve that meaſles of a highly red colour are more dangerous than thoſe which are moderately red. But Ingraſſia, a Neapolitan writer, is the firſt author of modern times who has deſcribed the ſcarlatina. (See his Treatiſe de Tumoribus Præter. Nat.) The diſeaſe was known at Naples before the year 1500 by the name of Roſalia. A Dutch phyſician has deſcribed a contagious ſore throat, which raged near Amſterdam in 1517.—A ſimilar complaint ſpread through Lower Germany in 1564-5, and was epidemical in Paris a few years after. The garrotillo of the Spaniards, which was very deſtructive during forty years in the ſixteenth and ſeventeenth centuries appears to have been a variety of ſcarlatina. It was afterwards, ſeveral ſucceſſive times, at Leipſic, and other places on the continent, deſcribed as a new diſeaſe under different denominations. Sydenham and Morton firſt treated of it in England. It is mentioned by Sir Robert Sibbald, in 1680, as having lately appeared at Edinburgh. In the Edinburgh Medical Eſſays, vol. iii. p. 27. it is deſcribed, under the proper terms "ſcarlet fever and angina," as an epidemic in 1733. Huxham deſcribes it, as a "febris anginoſa," 1734, and ſubſequently, "febris miliaris rubra," febris anginoſa miliaris," &c. The modern accounts of it, ſince the time of Dr Fothergill and Dr Cotton, are well known. Dr Willan concludes his very complete literary hiſtory of the diſeaſe with this inference, "That no Britiſh author has yet deſcribed any epidemical and contagious ſore throat, except that which attends the ſcarlet fever."

The author deſcribes three varieties of ſcarlatina; 1. S. *ſimplex*, 2. S. *anginoſa*, and 3. S. *maligna*. He mentions alſo a fourth form of the diſeaſe, viz. the ſcarlet ulcerating ſore throat, without any efflorescence on the ſkin. "It is truly ſingular," he obſerves, "that the ſlighteſt of all eruptive fevers, and the moſt violent, the moſt fatal diſeaſe known in this country, ſhould rank together, and ſpring from the ſame origin; but experience decides that theſe are merely varieties of one diſeaſe." P. 281. The author's experience alſo tends to confirm another practical inference, that ſcarlet fever never attacks the ſame individual twice. Among two thouſand patients, whom he has viſited in it, he never ſaw ſuch a repetition. Dr Withering, it may be added, "believed it to be as great an improbability as a repetition of the ſmall-pox."

We cannot at preſent follow the author in his deſcription of the variety of appearances belonging to the different forms of the diſeaſe. His account of the diagnoſtic marks of the efflorescence in ſcarlatina and meaſles is particularly worthy of attention. "It is much more full and ſpreading in the former diſeaſe than in the latter, and conſiſts of innumerable points and ſpecks under the cuticle, intermixed with minute papulæ, in ſome caſes forming continuous, irregular patches, in others coaleſcing into an uniform fluſh over a conſiderable extent of ſurface. In the meaſles the ruſh is compoſed of circular dots partly diſtinct, partly ſet in ſmall cluſters or patches, and a little elevated, ſo as to give the ſenſation of roughneſs when a finger is paſſed over them. Theſe patches are ſeldom confluent, but form a number of creſcents or ſegments of circles, with large intervening portions of cuticle, which retain their uſual appearance. The colour of the raſh is alſo different in the two diſeaſes, being a vivid red in the ſcarlatina, like that of a boiled lobſter's ſhell; but in the meaſles a dark red, with nearly the hue of a raſpberry." P. 260.

In the ſimple ſcarlatina, without any affection of the throat, moderate and equable temperature, with light diet and cooling drink, ſeems to be all that is neceſſary for its cure.

In the S. anginoſa Dr W. recommends the early uſe of emetics, but has not found it neceſſary to repeat them ſo often as Dr Withering has adviſed. He condemns any endeavour to excite perſpiration during the firſt ſix days of the diſeaſe by antimonials, camphor, aromatics, &c. Before the decline of the efflorescence "they not only fail to produce their uſual effect, but often increaſe the heat, anxiety, and reſtleſſneſs, they were intended to relieve." It has been aſcertained, indeed, by Dr Currie, that where the heat of the ſkin is much greater than natural) and in ſcarlet fever it riſes higher than in any other diſeaſe) the only effectual mode of exciting perſpiration, is to *reduce* the external temperature by cool or cold applications. Hence the rapid and ſalutary effects of the cold affuſion. But this practice has not been reſorted to in this diſeaſe in London. We are happy, however, to find that, during the laſt autumn, when 52 boys and 19 girls were attacked with ſcarlatina in the Foundling Hoſpital, Dr Stanger had recourſe to waſhing with cold water and vinegar. "Moſt of the patients were repeatedly waſhed with cold water and vinegar mixed in about equal proportions. Its effects in cooling the ſkin, diminiſhing the frequency of the pulſe, abating thirſt, and diſpoſing to ſleep, were very remarkable. Finding this application ſo highly beneficial," Dr Stanger adds, "I employed it at every period of the fever, provided the ſkin were hot and dry."

Dr Willan and Dr Stanger have both lately uſed the oxygenated muriatic acid, which appears to them to be very ſalutary. The doſe for adults is half a drachm by meaſure, for children 10 or 12 drops. Care ſhould be taken that it be accurately prepared. Dr Willan quotes Dr Sims for the uſe of vitriolic acid, and Dr Withering for the uſe of diuretic medicines, eſpecially fixed alkali; but he ſubjoins no opinion reſpecting theſe deduced from his own practice. At the decline of the effloreſcence, if the fever alſo declines, and is not ſucceeded by a cough, Peruvian bark, mineral acids, wine, and nutritious diet, obviate the debility, and contribute to prevent the acceſſion of dropſy. The nitrous fumigation is preferred to ſharp gargles for keeping the throat clean in the more malignant ſpecies. Bliſters are here detrimental, and the cold affuſion inapplicable. Early emetics are adviſed, and cordials, bark, and wine, as the diſeaſe advances.

Dr W. concludes with ſome uſeful obſervations on the neceſſity and importance of adopting and enforcing proper meaſures for preventing the ſpreading of this diſeaſe.

We have been thus ample in our analyſis of this original work, from a conviction of the neceſſity of reſorting to ſome common ſtandard of arrangement and nomenclature in cultivating a knowledge of this tribe of diſeaſes, and from a belief that this ſyſtem is well adapted to that end. It is equally diſtinguiſhed for accuracy and originality of obſervation, as for learning and reſearch. In the practical application of it, indeed, much difficulty will be found; but this ariſes, perhaps, more from the nature of the morbid appearances in queſtion, than from over-refinement in the arrangement before us: and to be accurate in the practical diſcrimination of thoſe appearances will require, at any rate, much habit, and a greater nicety of obſervation than the majority of practitioners are accuſtomed to employ. It is to be regretted that the work proceeds ſo tardily. The plates, which, in the parts already publiſhed, are 24 in number, are excellent ſpecimens of the facility of conveying accurate notions of cutaneous eruptions by the pencil.

II.

A Treatiſe on Febrile Diſeaſes, including Intermitting, Remitting, and Continued Fevers; Eruptive Fever; Inflammations; Hemorrhagies; and the Profluvia; in which an attempt is made to preſent, at one View, whatever, in the preſent State of Medicine, it is requiſite for the Phyſician to know reſpecting the Symptoms, Cauſes, and Cure of thoſe Diſeaſes. By Alexander-Philips Wilson, M. D. F. R. S. Ed. Phyſician to the County Hoſpital at Wincheſter, Fellow of the Royal College of Phyſicians, Edinburgh. 4 vols. 8vo. Wincheſter, 1799, 1800, 1801, 1804.

These volumes are the reſult of ſeveral years application, preparatory to a courſe of lectures on Febrile Diſeaſes, which the author delivered in Edinburgh in the ſummer of 1796. An infirm ſtate of health having obliged him to diſcontinue them, he conceived that his labours might ſtill be rendered uſeful to others, by filling up a deficiency in the medical literature of this country, the want of a complete treatiſe on febrile diſeaſes, in which every fact known with regard to them ſhould be collected and ſyſtematically arranged. To preclude the neceſſity of conſulting original writers on theſe diſeaſes, is accordingly the avowed object of this work, and, in a great meaſure, it is adapted to attain this purpoſe. In another point of view, it muſt be conſidered as an uſeful index to thoſe practical authors whoſe writings are to be found in this country; and although we muſt regret that he has not taken advantage of the induſtry and abilities of a Hufeland and a Reil, who have trodden nearly the ſame path, it would be uncandid not to ſtate that he ſeems to have neglected no ſource of information to which he probably had acceſs. If Dr Wilſon had contented himſelf with merely increaſing the value of a favourite ſyſtematic author by a farther accumulation of facts, we ſhould have thought our duty diſcharged by allowing him the credit due to his induſtry; but he claims more particular attention by the peculiarity of their arrangement, the original views which he takes of them, his inveſtigations of their relative importance, and the propoſed improvement of their claſſification.

Of a work of ſuch extent as the preſent we cannot attempt any detailed analyſis, and ſhall therefore chiefly confine ourſelves to ſome obſervations on the general concluſions which he has deduced from the examination of ſo many facts, and more particularly to his noſological arrangement; for perfectly do we agree with our author in his reply to thoſe who had cenſured him for aſcribing too much importance to noſology.

> "Let thoſe who ſlight the labours of the noſologiſt recollect that it is his province to point out the ſymptoms which diſtinguiſh one diſeaſe from another, and to arrange diſeaſes in ſuch a way as may beſt ſhow their affinity, and conſequently aſſiſt the memory in recollecting their modes of treatment. The anatomiſt detects the changes induced by internal diſeaſes; but of what uſe would this knowledge prove, did not the noſologiſt point out the means of aſcertaining the preſence of ſuch morbid ſtates previous to death. In vain might the chemiſt and botaniſt ſupply us with medicines, did not the noſologiſt enable us to diſtinguiſh the caſes in which they are uſeful.
>
> "By far the greater number of miſtakes I have witneſſed in practice have originated from the neglect of noſology. It often happens that an opinion, at firſt maintained on no other account than its ſingularity, becomes current among thoſe who are unable, or will not be at the trouble, to think for themſelves. Many exclaim againſt noſology, but cannot tell why. The truth is, an accurate knowledge of it is acquired with difficulty, and the indolent are glad of an apology for neglecting it altogether."

So far do we differ from our brother critics, that we are inclined to blame Dr Wilſon for having diſappointed us, by relinquiſhing his original philoſophic plan of concluding his work with a detailed view of the noſology of febrile diſeaſes.

We cannot enumerate the contents of theſe volumes in a manner more advantageous to our readers than by tranſcribing his arrangement and definitions of febrile diſeaſes.

ARRANGEMENT OF FEBRILE DISEASES.

CLASS I.—*FEBRES IDIOPATICÆ.*

"Prægreſſis languore, laſſitudine, et aliis debilitatis ſignis, pulſus frequens, calor auctus, ſine morbo locali primario.

ORDO I.—*FEBRES INTERMITTENTES ET REMITTENTES.*

"Febres idiopathicæ, paroxyſmis pluribus, apyrexià, ſaltem remiſſione evidente, interpoſitâ, cum exacerbatione notabili, et plerumque cum horrore redeuntibus, conſtantes.

"SPECIES I. *Tertiana.*—2. *Quartana.*—3. *Quotidiana.*

ORDO II.—*FEBRES CONTINUÆ.*

"Febres idiopathicæ, ſine intermiſſione, ſed cum remiſſionibus et exacerbationibus, parum licet notabilibus, perſtantes.

SPECIES 1.—*Synocha.*

" Calor plurimum auctus, pulſus frequens, validus, et durus, urina rubra, ſenſorii functiones parum turbatæ.

SPECIES 2.—*Typhus.*

" Morbus contagioſus, calor parum auctus, pulſus parvus debilis, plerumque frequens, urina parum mutata, ſenſorii functiones plurimum turbatæ, vires multum imminutæ.

SPECIES 3.—*Synochus.*

" Morbus contagioſus, febris ex ſynochâ et typho compoſita; initio ſynocha, progreſſu, et verſus finem, typhus.

" *Varietas 1ma. Synochus Simplex.—2da. Synochus Petechialis.—3tia. Synochus Miliaris.—4ta. Synochus Aphthoſus.—5ta. Synochus Eryſipelatoſus.—6ta. Synochus Veſicularis.*

ORDO III.—*EXANTHEMATA.*

" Morbi contagioſi, cum febre idiopathica incipientes; definito tempore, apparent papulæ, ſæpe plures, exiguæ, per cutem ſparſæ.

" SPECIES 1. *Variola.*—2. *Varicella.*—3. *Rubeola.*—4. *Scarlatina.* 5. *Peſtis.*—6. *Urticaria.*

CLASS. II.—*FEBRES SYMPTOMATICÆ.*

" Morbi locales primarii, calore aucto, pulſu frequente.

ORDO I.—*PHLEGMASIÆ.*

" Febres ſymptomaticæ, pulſu duro; quibus eſt pro morbo locali, vel inflammatio externa, vel dolor topicus ſimul læſâ partis internæ functione.

" SPECIES 1. *Phlogoſis.*—2. *Ophthalmia.*—3. *Phrenitis.*—4. *Cynanche.*—5. *Pneumonia.*—6. *Carditis.*—7. *Peritonitis.*—8. *Gaſtritis.*—9. *Enteritis*—10. *Hepatitis.*—11. *Splenitis.*—12. *Nephritis.*—13. *Cyſtitis.*—14. *Hyſteritis.*—15. *Rheumatiſmus.*—16. *Odontalgia.*—17. *Podagra.*—18. *Arthropuoſis.*

ORDO II.—*HÆMORRHAGIÆ.*

" Febres ſymptomaticæ, quibus eſt pro morbo locali, ſanguinis profuſio abſque vi externa.

" SPECIES 1. *Epiſtaxis.*—2. *Hæmoptyſis.*—3. *Hæmorrhois.*—4. *Menorrhagia.*—5. *Hæmatemeſis.*—6. *Hæmaturia.*

ORDO III.—*PROFLUVIA.*

" Febres ſymptomaticæ, quibus eſt pro morbo locali, excretio aucta naturaliter non ſanguinea.

" SPECIES 1. *Catarrhus.*—2. *Dyſenteria.*

The intelligent reader will readily perceive wherein Dr Wilſon's arrangement differs from Dr Cullen's, and in the introduc-

tion he has given the reaſons why he conſiders theſe differences as improvements. On many occaſions this actually ſeems to be the caſe, but on others it is by no means ſo evident. Even the propriety of his primary diviſion of fevers into idiopathic and ſymptomatic may be doubted on account of the difficulty of aſcertaining in practice to which of theſe claſſes particular inſtances are to be referred, more eſpecially as the diſtinctive characters given of them by Dr Wilſon do not univerſally apply. According to him, in the one ſet of diſeaſes, the fever is the primary complaint, in the other it is the conſequence of ſome local affection; in the one the fever is not at all proportioned to the local affection, in the other it is, and varies in kind as the local affection varies; and in the one the treatment is conducted upon different principles from what it is in the other. The laſt character drawn from the difference in the treatment would be of importance in framing natural families of diſeaſes, but is inadmiſſible in artificial ſyſtems, contrived for the purpoſe of recogniſing diſeaſes previous to their treatment. The two other differences would, however, be ſufficient to diſtinguiſh them, if they were conſtant, and always capable of being aſcertained; but, if we were diſpoſed to cavil, we might object to Dr Wilſon's arrangement, as excluding from the exanthematous diſeaſes inoculated ſmall-pox and cow-pock, in both of which the local affection precedes and is the cauſe of the fever. But other difficulties attending this diviſion of fevers have not eſcaped Dr Wilſon himſelf. Thus, when treating of inflammations, he obſerves, that inflammation may be combined with fever in three ways: the inflammation may ſupervene on the fever, as in the exanthemata; the fever may be produced by the inflammation, as in the true phlegmaſiæ; or a phlegmaſia, that is, an inflammation with the fever occaſioned by it, may ſupervene on ſimple fever. In the laſt caſe, the fever precedes the phlegmaſia a conſiderable time, and the firſt is, according to Dr Wilſon, readily diſtinguiſhed by the appearance of the inflammation not aggravating the fever; but when the phlegmaſia ſupervenes ſoon after the commencement of the fever, the diagnoſis our author confeſſes to be difficult.

" The truth is, that, in the true phlegmaſiæ, both ſets of ſymptoms, eſpecially if the ſeat of the inflammation be internal, appear together. It is impoſſible to ſay which appear firſt, and it is evident, that if any degree of the local affection produces a correſponding degree of fever, the one cannot appear unattended by the other.

" But, if ſuch is the caſe, it may be aſked, How do we determine which is the primary affection? To this queſtion the following circumſtances readily afford an anſwer. The cauſes which induce fever do not at the ſame time induce inflammation. In 19 caſes out of 20 inflammation does not ſupervene on fever, and when it does, it generally arrives from cauſes different from thoſe which induced the fever. But if, on the other hand, inflammation, that is, ſuch as attends the phlegmaſiæ, be excited, fever is the conſtant attendant, and its degree is proportioned to that of the local affection.

" Beſides, as we ſucceed by local remedies in relieving the inflammation, we find that in preciſely the ſame degree the febrile ſymptoms abate. If the inflammation be not terminated by reſolution, but run on to ſome of the other termination, the febrile ſymptoms are ſtill found to correſpond exactly to the changes which take place in the local affection; and ſo conſtant is this correſpondence, that we can determine, from the ſtate of the febrile ſymptoms alone, in what way the inflammation is terminating, although the termination be induced by means whoſe action is wholly confined to the inflamed part.

" If, then, fever is not neceſſarily attended with the inflammations which appear in the phlegmaſiæ, if ſuch inflamations are univerſally attended with fever, the degree and ſtate of the inflammation regulating thoſe of the febrile ſymptoms, the concluſion is, that in the phlegmaſiæ (and the ſame mode of reaſoning applies to the other ſymptomatic fevers) the local affection is the primary complaint."

But if the difficulty be thus great in forming the diagnoſis of inflammations, it is ſtill greater with regard to hemorrhagies and the profluvia, in which the fever not only precedes the local affection, but is ſo far from being induced by it, that, in the caſe of hemorrhagies, it is removed by it; or, to uſe the words of our author, " when the fever has been conſiderable, it generally continues till the blood ceaſes, or nearly ceaſes, to flow." But although we do not, in the preſent ſtate of our knowledge, approve of making ſo ambiguous a character the baſis of his primary diviſion of febrile diſeaſes, ſtill many of his obſervations connected with the inquiry are ingenious, and his remarks on the propriety of proceeding in a ſyſtematic arrangement from the ſimple to the compound diſeaſes, appear to be well founded.

The firſt volume contains the intermittent and remitting fevers. When treating of the proximate cauſe of fever, Dr Wilſon gives an abſtract of the Brunonian doctrine, to which he ſeems, to us, to allow more merit than is conſiſtent with the numerous contradictions and imperfections he has pointed out in it. But having lately ſtated our ſentiments on this ſubject, we ſhall not now reſume it, farther than by requeſting our readers to contraſt Dr Brown's genuine doctrine with the following, which, in our opinion, is erroneouſly ſaid to be a modification and improvement of it by Dr Wilſon.

RECAPITULATION.

" I.—*Excitability* is that quality of the living ſolid which diſtinguiſhes living from dead matter.

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" II.—*Excitement* is a ſtate of activity.

" III.—*Atony* is a ſtate of inactivity, that is, of debility, in which every part of the ſyſtem is preternaturally ſenſible to the action of ſome agents, and preternaturally inſenſible to that of others; and watchfulneſs is the conſequence.

" IV.—*Agent* is any thing capable of occaſioning a change in the ſtate of the living ſolid.

" V.—Agents are either *Stimuli* or Atonics.

" VI.—*Stimuli* are thoſe agents which produce excitement.

" VII.—Excitement is either *moderate* or *exceſſive*.

" VIII.—*Moderate excitement* is that which is followed by *Exhauſtion*.

" IX.—*Exhauſtion* is a ſtate of inactivity, that is, of debility, in which thoſe parts of the ſyſtem on which the animal functions depend become uniformly leſs ſenſible to the action of all agents; and ſleep, that is, a ſuſpenſion of the animal functions, is the conſequence *.

" X.—*Exceſſive excitement* (VII.) is that which is followed by atony. (III.)

" XI.—*Atonics* are thoſe agents (V.) which produce atony.

" XII.—The ſyſtem in general is either in a ſtate of *health* or *diſeaſe*. Prediſpoſition to general diſeaſe is a ſtate that cannot be defined.

" XIII.—*Health* is either a ſtate of moderate excitement (VIII.) or exhauſtion. (IX.)

" XIV.—*General diſeaſe* is either a ſtate of exceſſive excitement (X.) or atony. (III.)

" XV.—Atony is to be removed by inducing moderate excitement.

" XVI.—Exceſſive excitement is to be removed by changing exceſſive into moderate excitement.

" XVII.—General diſeaſe includes infinite varieties, from the greateſt exceſs of excitement to the extreme of debility.

" XVIII.—Simple fever is the only general diſeaſe, and may be defined, Exceſſive excitement or debility of all the functions, without any local affection.

" XIX.—All other diſeaſes are either local, or general and local.

" XX.—The laws of excitability are changed in fever. This change is ſufficient to account for the phenomena eſſential to fever, without ſuppoſing any change induced on the fluids.

XXI.—The proximate cauſe of fever, therefore, is a change in the laws of excitability; in conſequence of which, the ſame agents no longer produce the ſame effects.

" XXII.—In ſimple fever, then, there are only two indications of cure; the one to moderate excitement, the other to remove atony, (XV. XVI.)"

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* " The sleep which is not the effect of and proportioned to the preceding excitement is not natural, and is the consequence of a morbid affection of the brain. It is a local disease, produced by compression, by various substances applied to the brain, such as opium, tobacco," &c.

The ſecond volume contains the continued fevers and exanthemata; and, in treating of the inoculation of the ſmall-pox, he takes occaſion to mention the cow-pock, which he has omitted in his arrangement, but his account of it is by no means ſo complete as it might have been. Indeed, he does not deſcribe the ſymptoms of the diſeaſe as produced by vaccination.

The Phlegmaſiæ occupy the third, and greater part of the fourth volume. In the former, the principal novelty is an account of a theory of inflammation, propoſed by Dr Lubbock and Mr Allen, about the year 1790, in the Royal Medical Society of this place, in which it ſtill continues a pregnant ſource of medical diſputation. Contrary to the commonly received opinion, it makes inflammation to conſiſt in the debility of the capillaries, followed by an increaſed action of the larger veſſels, and to terminate as ſoon as the capillaries are ſo far excited, and the larger arteries ſo far weakened, by their exceſſive action, that the force of the capillaries is in due proportion to the *vis a tergo*. This doctrine Dr Wilſon ſupports with great ingenuity, endeavouring to refute the arguments of Dr Fowler, who, in his inaugural diſſertation, ſtood forth in 1793 as the champion of the commonly received opinion. He contends, that upon no other principles can we account for the phenomena and cure of inflammation; and we muſt confeſs that his arguments are ſtrongly ſupported by the following intereſting obſervations:

> "It is no difficult matter to determine the ſtate of the circulation in an inflamed part. An inflammation had been excited, I do not know how, in the web of a frog's foot; having applied it to the microſcope, I found the veſſels of the part greatly dilated, and the motion of the blood extremely languid. In ſeveral places, where the inflammation was greateſt, it had ceaſed altogether. It was at once evident, on obſerving the part through the microſcope, that where the inflammation was greateſt the veſſels were moſt dilated, and the motion of the blood was ſloweſt. Nor did I, in one inſtance, obſerve the alternate contractions and dilatations ſuppoſed by Dr Fowler to be the very eſſence of inflammation.
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> "The diſtention of the veſſels, which in the healthy ſtate admit only the colourleſs parts of the blood, was apparent; for in the inflamed parts a much greater number of veſſels admitted the red particles than in the ſound, and the interſtices of the red veſſels appeared more opake, probably from the enlargement of innumerable ſmall veſſels, ſtill too ſmall to admit the groſſer parts of the blood.
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> "While I was viewing the inflamed web, it occurred, that if I could ſucceed in ſtimulating its veſſels to action, and thus remove the inflammation, which by this time I was thoroughly convinced depended on their debility, this would be an additional proof of the doctrine before us.
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> "With this view I wetted the inflamed web with diſtilled ſpirits, at the

the ſame time throwing upon it the concentrated rays of the ſun from the ſpeculum of the microſcope. The blood, in all the veſſels except in thoſe of the moſt inflamed part, began to move with greater velocity, and, in proportion as this took place, the diameters of the veſſels were diminiſhed, and the redneſs become evidently leſs remarkable, the web ſeemed paler, and the interſtices of the veſſels became leſs opake.

"In the moſt inflamed part, however, the blood was ſtill ſtagnant. After I had deſpaired of reſtoring action to the veſſels of this part, I ſaw the blood begin to move ſlowly in a veſſel which ran directly through the middle of it. It ſoon acquired a conſiderable velocity, and, on taking a ſuperficial view of the part through the microſcope, the courſe of this veſſel appeared like a ſtreak of a lighter colour through the middle of the red inflamed part."

"It has been aſſerted," ſays Dr Wilſon, "that the opinion here alluded to is of much older date; and that imperfect traces of it are to be found in the works of various writers cannot be denied; but their obſervations in one paſſage contradict thoſe in another, ſo that Dr Lubbock and Mr Allen have the merit of having firſt advanced the opinion in a connected form, and of having ſeparated it from the remains of the old hypotheſis."

Herein Dr Wilſon is undoubtedly miſtaken, for, in every material circumſtance of the theory, theſe gentlemen, without knowing it, were anticipated by a very ſingular man, and in a very ſignular manner,—by Vacca Berlinghieri, Profeſſor at Piſa, and in the form of mathematical propoſitions, demonſtrations, lemmas, corollaries, and ſcholiums. We by no means wiſh to inſinuate that theſe gentlemen borrowed their theory from him, for if even Dr Wilſon had ever met with his work, he could not have paſſed it over unnoticed. In proof of our aſſertion, and as a medical curioſity, we ſhall make ſome quotations from it.

"*Prop.* I.—Inflammatio cujuſvis partis humani corporis numquam fit, niſi in ipſa parte ſanguis coacervetur et fere quieſcat.

"*Demonſtrat.*—Id experientia, quæ nunquam fallit, clariſſime conſtat. Videmus enim, antequam inflammatio incipiat, partis inflammatæ molem ſemper modo magis, modo minus augeſcere: et ex colore rubro, quo pars eadem perfunditur, evidentiſſime infertur, ſanguinem tum in canalibus propriis ipſius partis majori copia colligi, tum alios canales non rubros, veluti ſeroſos ingredi. Utrumque vero fieri non poteſt, niſi major ſanguinis quantitas ad partem ipſam confluat, et in eadem coacervetur. Tandem ſi cultello, vel phlebotomo, pars inflammata incidatur, magna in ea ſanguinis coacervati copia reperitur. Ergo patet propoſitum.

"*Prop.* II.—Coacervatio, et ſemiſtagnatio ſanguinis, vel alius humoris corporis humani in quacumque ipſius corporis parte minime contingere poteſt ſine ipſius partis abſoluta vel relativa debilitate.

"Debilitatem abſolutam vocamus eam realem vigoris canalium, et ſolidorum imminutionem ; relative autem debilia fieri ſolida alicujus partis intelligimus, cum creſcente ſanguinis impetu, et in eadem ratione creſcente ſolidorum aliarum partium vigore, in canalibus, et ſolidis ejus partis vigor ſolitus remanet, qui idcirco aucto ſanguinis momento reſiſtere nequit.

"*Prop.* III.—Data eadem partis cujuſdam debilitate, non ſolum concervatio, et ſemiſtagnatio ſanguinis fiet in ipſius partis ſanguineis vaſculis, ut demonſtratum eſt, verum etiam canales laterales lymphaticos, et adipoſos ipſius partis ſanguis ingredi debet.

"*Prop.* IV.—Ex majori collectione ſanguinis in vaſculis ſanguineis alicujus partis, et ex ingreſſu ipſius in canales tam lymphaticos quam adipoſos, et ex ejuſdem ſanguinis per ipſos, atque ſanguineos canales lentiſſimo motu inflammatio morboſa in eadem parte oriri poteſt.

"*Prop.* V.—Ex majori ſanguinis in parte quacumque inflammatione, inflammatio pinguedinis circumpoſitæ, et in ea parte exiſtentis, exoritur.

"*Prop.* VI.—Ex enata inflammatione in aliqua humani corporis parte major ſanguinis, et humorum quantitas in eamdem partem influit, atque ideo tumor neceſſario major fieri debet."

We have given the demonſtration of his firſt propoſition as an example of his manner, while the enunciation of the others will ſerve to exhibit his theory in all its parts. If any one object to the abſurdity of the chemical opinions involved in it, it muſt be remembered that Vacca wrote in 1765; and to ſhow that his theory was not an idle hypotheſis, but led to a rational and approved method of cure, we muſt requeſt our readers' indulgence while we make one more quotation.

"Si humores inflammata parte collecti, et effuſi quieſcentes diu maneant, corrumpuntur, et ſuppurationem vel gangrænam producunt, aut dureſcunt, et ſcirrhus ſupervenit. Ut igitur ea mala evitentur, neceſſe eſt ut fluida ſtagnantia reſorbeantur, et circulatorio motu rurſus in gyrum circumagantur. Quod ut fiat, vigor partis inflammatæ ſolidis reddi debet ; cum jam demonſtraverimus, ſtagnationes inflammatorias ex partis ipſius debilitate naſci. Vigor partis inflammatæ augeri poteſt, vel immediate et directe, vel indirecte et mediate. Immediate augetur applicando eidem parti medicamenta roborantia. Indirecte autem roborantur partes, vim, qua fluida contra ipſas agunt, infringendo."

The profluvia and hemorrhagies, together with phthiſis pulmonalis, do not occupy one-half of the fourth volume; but our author has altogether omitted the genus of catarrh, if we except the very ſlight notice taken of it in the preface. The reaſons he has advanced for this omiſſion are quite unſatisfactory. The want of an accurate hiſtory of epidemic catarrh eſpecially conſtitutes a real and important defect in the work; and although it might be adviſable to compriſe the whole in four volumes, that object ought to have been attained by condenſing every article more or leſs, and not by paſſing over any altogether in ſilence. But even this condenſation, although our author's ſtyle would have permitted it to be very conſiderable, with great advantage to the work, was not abſolutely neceſſary, for ſufficient room would have been gained by the omiſſion of the appendixes to the third and fourth volumes, conſiſting of our author's experimental inquiries into the circumſtances influencing the urinary depoſitions which appear in febrile diſeaſes, and into the manner in which tobacco and opium act on the living animal body. That theſe inquiries are important and highly creditable to Dr Wilſon's ingenuity and talents is unqueſtionable, but we conſider them as altogether miſplaced in the preſent work. Had they been original, they ought to have been publiſhed as ſeparate eſſays; but they have been before the public for ſeveral years, and are in the hands of many of our author's readers, and therefore, in a compilation like the preſent, in which the ſpace allotted to each article ſhould be nearly in proportion to its relative importance, they ought to have been merely referred to, or their general reſults extracted in the ſame manner as the publiſhed experiments of any other author. From experience we know how difficult it is to avoid typographical errors, but we cannot conclude our remarks without expreſſing our regret at their frequent occurrence in theſe volumes. As a whole, however, this work does infinite credit to the induſtry and judgment of Dr Wilſon, and we ſhall rejoice if a ſecond edition ſhould give him an opportunity of ſupplying the deficiencies, and correcting the errors, which ſomewhat detract from its merit.

III.

The Modern Practice of Phyſic. By EDWARD GOODMAN CLARKE, M. D. Author of the Medicinæ Praxeos Compendium; of the Royal College of Phyſicians, London, and Phyſician to the Forces, &c. &c. 454 pp. 8vo. London. 1805.

WITH the crowd of compendiums, epitomes, and manuals, written to ſatiſfy the preſent taſte for acquiring ſuperficial knowledge without much trouble, the volume before us is ſcarcely to be confounded. In many reſpects it reſembles the author's Medicinæ Praxeos Compendium, but in a form conſiderably enlarged. To the character of each diſeaſe, from Cullen's Noſology, are added the ſymptoms, cauſes, diagnoſis, prognoſis, and moſt improved method of treatment, written in a plain and perſpicuous ſtyle; and while our author's former work will ſtill continue to be a favourite with candidates for medical degrees, this will probably become popular with another claſs of readers.

IV.

The Edinburgh Practice of Phyſic, Surgery, and Midwifery; preceded by an Abſtract of the Theory of Medicine, and the Noſology of Dr Cullen; *and including upwards of ſix hundred Authentic Formulæ, from the Books of St Bartholomew's, St George's, St Thomas's, Guy's, and other Hoſpitals in London, and from the Lectures and Writings of the moſt eminent Public Teachers. Wtth* 20 *quarto Plates.* A new edition, in five vols. Vol. I. and II. Medicine; III. and IV. Surgery; and V. Midwifery. 8vo. London. 1803.

This work, voluminous as it is, will not detain us long; but we think it our duty to expoſe the manner in which it has been manufactured. The firſt edition of this *Edinburgh* Practice conſiſted of *London* formulæ ſubjoined to the articles Medicine, Surgery, and Midwifery, reprinted from the third edition of the Encyclopedia Britannica. In this ſtate it formed one volume, and was a cheap, uſeful, and conſiſtent ſyſtem. But the ſpeculation having ſucceeded, the publiſhers have thought proper, with the view of increaſing their profits fivefold, to ſwell out to five volumes a ſyſtematic work, originally compendious, by awkwardly interpolating detailed caſes, and long extracts from diffuſe writers, and have thereby converted it into an expenſive, comparatively uſeleſs, and incongruous compilation.

The whole performance, as it now ſtands, is beneath criticiſm; but there is one miſrepreſentation in the preface which we cannot ſuffer to paſs in ſilence. It is there falſely inſinuated, for good reaſons, no doubt, that Dr Monro was the author of the article Medicine ſo unbluſhingly plagiariſed from the Encyclopedia Britannica. This miſrepreſentation is perfectly inexcuſable, as the article is not anonymous.

V. & VI.

Oſſervazioni Mediche ſulla Malattie Febrile dominante in Livorno, per ſervire d'Iſtruzioni ai Signori Medici deſtinati al ſervizio del nuovo Spedale proviſorio di S. Jacopo. Del Dottore Gaetano Palloni, Prof. onorario dell' Univerſita di Piſa, e Medico commiſſionato dal Regio Governo d'Etruria preſſo la Deputazione di Sanitá di detta Citta. 8vo. Livorno. 1804.

Parere Medico ſulla Malattia Febrile che ha dominato nella Citta di Livorno, l'Anno M,DCC,CIV. Del Dottore Gaetano Palloni, &c. 12mo. Livórno. Avrile, 1805.

While the medical philoſophers of the new world aſcribe the fever which depopulates their cities to local cauſes, and deprecate the idea that it can be exported in their ſhips, we have lately ſeen kindred epidemics for the firſt time viſit the ſhores of Spain, and of the Mediterranean. The ſubject is too intereſting to us, to our colonies, and to our commerce, not to excite us to ſeek with avidity every information which may enable us to prevent the introduction of ſuch a calamity into theſe kingdoms, of recogniſing it when introduced, and of checking its progreſs. It was, therefore, with the moſt heartfelt gratitude, that, from the zeal of the learned Fabbroni of Florence, we received theſe intereſting memoirs; and we cannot better expreſs our opinion of the value of the gift, than by communicating to our readers, and to the nation at large, the greater part of their contents, without preſuming to intermix them with any of our opinions.

The firſt of theſe pamphlets was written, during the prevalence of the fever, for the inſtruction of the phyſicians appointed to attend a proviſionary hoſpital; the ſecond after the health of the city was reſtored; and both may be conſidered as official documents, conſtituting the moſt perfect hiſtory we yet poſſeſs of any of the late epidemics of the ſouth of Europe.

SYMPTOMS OF THE DISEASE.

From the moſt perfect ſtate of health, without any or a very ſlight prediſpoſition, the patient is ſurpriſed with an attack of fever; a ſenſe of coldneſs, more or leſs intenſe, along the ſpine,

and

and in the region of the loins; very ſevere pain in the head, intolerable at the temples and forehead, inflamed eyes, and the albuginea injected with blood; a ſomewhat hard and quick pulſe, a very burning heat on the ſkin; a ſenſe of uneaſineſs in the epigaſtric region, and inclination to vomit; pains in the joints and all the limbs; urine ſcanty, and belly bound.

For three days the fever proceeds with theſe ſymptoms, characteriſtic of a true ſynocha; but ſuddenly they abate; and the patient paſſes into a ſtate of quiet and apparent apyrexia, with a moderate heat and gentle moiſture of the ſkin, and with extreme debility. But, in the courſe of a few hours, an exacerbation takes place, the diſeaſe acquires new force and a new character. Gaſtric ſymptoms of the greateſt violence commence. The ſlight uneaſineſs at the epigaſtric region becomes an intenſe pain, increaſed on preſſure, in the region of the ſtomach and liver. The red colour of the eyes is changed to yellow. The urine gets an intenſely deep yellow colour. There is a complete diſguſt at food and drink, with conſtant vomiting of every thing taken, or of pure bile, and often ſome lumbrici; oppreſſion at the præcordia; frequent ſighing; thin, very fetid, and not unfrequently aſh-coloured, ſtools; and a jaundiced tint of all the ſurface of the body, but eſpecially of the face and of the neck. The ſyſtem acquires a particular fœtor, ſimilar to that of putrid bile. In the midſt of ſo great diſturbance, the mental faculties remain entire, and henceforward there is no appearance of acceſſion, increaſe, or decreaſe of the fever. The pulſe at one time in appearance tranquil, at another extraordinarily ſlow, or ſmall, quick, and irregular, ſometimes full, ſometimes depreſſed, is no longer any guide to the phyſician to judge of the ſtate or force of the diſeaſe.

At this period, which commonly happens from the fifth to the ſeventh day, the higheſt degree of nervous ſymptoms commences with *ſubſultus tendinum*, and tremors of the whole limbs. The vomiting becomes more frequent, and of a matter extremely fetid, atro-ſanguineous, and of a colour reſembling coffee-grounds. Black blood exudes, and often in great quantity, from the gums and fauces. Sometimes a few drops diſtil from one of the noſtrils, and it is frequently loſt in great quantities by ſtool, and from the uterus in women. The ſecretion of urine entirely ceaſes. Here and there upon the ſurface of the body, eſpecially where it reſts upon the bed, livid or blackiſh ſtreaks appear. The face, which is of a yellowiſh red colour, and eſpecially the lips, become turgid and ſwelled; the eyes dull, wandering, and full of tears. The panting for breath and anxiety are extreme. At this period coma and delirium appear;

pear; the extremities get cold, the pulſe intermits, and convulſions terminate the life of the patient on the fifth or eighth day at fartheſt.

When the diſeaſe is not ſo violent, and the termination is favourable, the paſſage to the ſecond ſtage is much eaſier, and ſweatings, turbid urine, with a copious ſediment, and abundant bilious ſtools, at firſt black, and afterwards yellow, are the ways by which nature attempts a criſis. In this caſe, towards the ſeventh day, the patient appears tranquil and lightened, but the jaundice ſtill manifeſts itſelf, and renders the convaleſcence longer and more difficult. Not only the yellow colour, but a profound melancholy and ſtupidity, an extreme proſtration of ſtrength, and ſuch an irritability of the ſtomach, that it cannot receive the ſmalleſt quantity even of the lighteſt food, or water itſelf, without vomiting it, along with a large quantity of viſcid, green bile, conſtitute the convaleſcence from this diſeaſe in extreme caſes. In ſome examples theſe ſymptoms have been protracted beyond the ſixtieth day.

In many the fever was ſo moderate, and the nauſea ſo ſlight, that the diſeaſe was only recogniſed by the intenſely yellow colour of the urine, and the jaundiced look of the eye.

In others the diſeaſe manifeſted itſelf with extraordinary ſymptoms, ſuch as hydrophobia, double viſion, and enlarged appearance of the objects ſeen, hemorrhagy from the ears, phlyctenæ, and ſwelling of the parotids. In ſome the jaundice was completely wanting, and others were jaundiced without manifeſt fever.

The diſeaſe was violent and rapid in the young, the robuſt, and plethoric, and ſlower and leſs ſevere in the weak, the old, and in females. To pregnant women it was almoſt always fatal, and children moſt frequently recovered. Intemperance of every kind, and eſpecially exceſs in wine and ſpirituous liquors, prediſpoſed to the diſeaſe, and to a more ſpeedy and inevitable death.

Generally ſpeaking, a fatal termination could be predicted at the commencement of the diſeaſe, from the violence of the febrile attacks, and the occurrence of very ſevere pains in the thorax, knees, and legs, extreme agitation, ſudden proſtration of ſtrength, and conſtant vomiting of black matter. The ſooner the yellow colour appears on the ſkin, the greater is the danger. Dyſpnœa, iſchuria, and hiccough, are generally fatal ſymptoms in every period of the diſeaſe. On the contrary, the abſence of violent ſymptoms at the commencement of the ſecond ſtage, vomiting occurring rarely, or merely of mucus, a moiſt ſkin, the late appearance of jaundice, abundant ſecretion

of

of urine, and much ſediment in it, eaſy, looſe, and bilious ſtools, and, laſtly, the abſence of every nervous ſymptom, are the moſt certain ſigns of a favourable iſſue.

APPEARANCES ON DISSECTION.

Externally, the body, eſpecially its upper half, had a livid yellow colour, variegated with grangrenous marks and ſtreaks, particularly in the epigaſtric region and right hypochondrium. The noſtrils were filled with black blood, and from the mouth exuded a quantity of very fetid black matter, reſembling that which was vomited before death. The muſcles, on being cut, were found to be ſoft, and of a blackiſh colour. In one or both cavities of the thorax a reddiſh black fluid like bile, mixed with blood, was extravaſated. The lungs, but eſpecially the right lobe, were gorged with blood, ſo that when cut they reſembled liver, and were marked, particularly on the poſterior ſurface, with gangrenous ſpots. The pericardium contained a larger quantity than uſual of a yellowiſh fluid. The coronary veſſels were turgid with blood; in other reſpects the heart was natural. The omentum was almoſt entirely deſtroyed, and alſo the fat in the reſt of the body ſeemed as if melted away and deſtroyed. The external ſurface of the ſtomach, liver, and inteſtines, had a livid yellow colour, indicating the inflammation and gangrene, which had occupied all the viſcera. The diaphragm was livid and inflamed, where it is in contact with the liver. The liver was ſoft and ſphacelated, and, on being cut, had the colour of having been boiled; its concave ſurface was moſt affected with gangrene; the gall bladder was corrugated, and for the moſt part contained a very ſmall quantity of glutinous bile of a blackiſh colour; but in ſome inſtances it was exceſſively diſtended with a ſimilar fluid. The ſpleen was in general in a natural ſtate, except that it was turgid with black blood. The ſtomach was gangrenous, eſpecially its internal coat, was filled with a black matter ſimilar to that vomited, and had its whole vaſcular ſyſtem turgid with blood. The inteſtines were mortified throughout their whole length, and the ſmall ones, in particular, were filled with a mephitic vapour. The kidneys manifeſted ſymptoms of inflammation, and the urinary bladder was empty, and marked with gangrenous ſtreaks.

The veſſels of the brain and its membranes were generally injected with blood, and ſometimes there was a ſlight extravaſation of a yellowiſh fluid in the ventricles.

Theſe morbid appearances were found in a greater or leſs degree in the bodies of all thoſe who died in this epidemic, even in thoſe who did not ſurvive the attack more than twenty-four hours.

METHOD OF CURE.

Having deſcribed the ſymptoms of this epidemic, and the appearances on diſſection, Dr Palloni treats of the curative means employed, under the title of Clinical Obſervations. He divides the diſeaſe into three varieties, according as it commenced; *1ſt*, With ſymptoms of vaſcular irritation; *2d*, With gaſtric ſymptoms; and *3dly*, With ſymptoms of debility. In the firſt caſe, blood-letting from the arm and hemorrhoidal veins was found to be of great ſervice; in the ſecond, emetics, when adminiſtered at the commencement of the attack, for, in an advanced ſtage of the diſeaſe, they were always very hurtful. The third variety was combated from the firſt by the ſame medicines which were adopted in the laſt ſtage of the other two.

After having diminiſhed the vaſcular irritation, if it exiſt, and emptied the bowels as ſoon as poſſible, our author adviſes us to endeavour to excite diaphoreſis by warm lemonade, in which a little tartrate of antimony is diſſolved, as a copious perſpiration, induced on the ſecond or third day, frequently cut the diſeaſe ſhort, as if by enchantment. If the diſeaſe proceed, he adviſes the free uſe of diluting liquids, and extols much the effects of nitric acid, with which the treatment may be begun, in thoſe caſes which commence with ſymptoms of debility. Calomel was given with advantage, in doſes of ten grains every three hours, in the beginning of the diſeaſe, and in robuſt, plethoric habits; while, in debilitated and ſcorbutic conſtitutions, and in an advanced ſtage of the diſeaſe, when hemorrhagy, black vomit, and other ſigns of diſſolution, have ſupervened, mercury, he thinks, can only increaſe the diſeaſe, and haſten its termination; and, in theſe caſes, nitric acid appeared to him admirably adapted to the indications.

In a diſeaſe where the vital forces ſink ſo rapidly, tonics might ſeem to be indicated, but experience proved the contrary. In caſes of the greateſt extremity, on the appearance of hemorrhagy from the mouth or noſe, the pulſe, which could not before be felt, would return, and recovery commence, and abortion, or a copious flooding in women, would frequently recal them, as it were, from death to life. When extreme proſtration of ſtrength, black vomit, and hemorrhagy, ſuggeſted the uſe of corroborants, the ſimple or camphorated decoction of cinchona was given with advantage in the form of clyſter.

Bliſters alſo did more harm than good. Sometimes the lymph contained in them was of an intenſely green colour, like the expreſſed juice of ſuccory, and ſo acrid as to inflame the ſkin beneath, and cauſe it to become rapidly gangrenous. Sinapiſms to the lower extremities were adopted with greater ſucceſs.

It was the character of this diſeaſe particularly to affect the liver, and to alter the ſecretion of bile, in a ſpecific manner, aſſimilating it to its own nature, determining it to the ſkin, ſo as to be ſucceeded by excoriation and deſquamation, as if it had been burnt, and rendering it ſo cauſtic as to corrode the internal membrane of the ſtomach and duodenum, and to deſtroy the vitality of every part with which it comes in contact, and of the fluids with which it mixes. Accordingly, every thing which acts directly upon the liver, ſo as to increaſe its vital reaction, and prevent the abſorption of bile, was uſeful; ſuch as frictions of oxygenated mercurial ointment, frequent clyſters, and, where there was any indolent turgidity of the liver, bliſters. To correct the diminiſhed ſecretion of urine, which always accompanies this diſeaſe, the digitalis purpurea was well adapted.

The fifth and ſeventh days were the moſt commonly fatal, although there were many examples of perſons dying in twenty-four or forty-eight hours, or in three days, while others have ſurvived thirteen or fourteen days, or even longer. The period when reconvaleſcence commences required the greateſt attention; mild laxatives, ſaponaceous pills, a weak infuſion of polygala, and the uſe of oxygenated mercurial ointment, had the beſt effects.

HISTORY OF ITS PROGRESS.

The diſeaſe began in Leghorn about the middle of the month of Auguſt, and terminated about the middle of December. Its progreſs may be divided into three diſtinct periods; the firſt, extending from its commencement to the 20th of October, was characterized by the ſmall number of deaths, which were daily from one to ſix at moſt, by the ſlow progreſs of the diſeaſe, and by its being limited to two or three ſtreets. The ſecond, from the 20th of October to the 20th November, was diſtinguiſhed by the greater number of victims, which increaſed to 26, by the more rapid progreſs of the diſeaſe, and by its diffuſion through various parts of the city. The third period, from the 20th of November to the middle of December, was marked by the gradual diminution of the diſeaſe, and its total ceſſation.

In the firſt and ſecond periods, the ſick had more or leſs diſtinctly the ſymptoms enumerated in the hiſtory of the diſeaſe, while thoſe of the laſt period had but a ſlight reſemblance of it. The diſeaſe aſſumed a rheumatic appearance, was milder and ſlower in its courſe, and did not declare itſelf until the ninth day. Recoveries were very rare during the firſt period, much more numerous in the ſecond, and frequent in the third. Of 164 patients admitted into the hoſpital of St James, 56 died; and in the whole city, containing 60,000 inhabitants, the number ſcarcely exceeded 700.

A very rainy and irregular ſummer was ſucceeded by an autumn rather warm and dry. In the very beginning of November the rainy ſeaſon commenced, and the ſouth wind ſet in, which prevailed until almoſt the end of December, interrupted, however, ſeveral times by ſome days of ſtrong ſouth-weſt winds, or north winds accompanied with intenſe cold. During all this time, the diſeaſe ran its courſe without ſeeming to be influenced by the variations of the ſeaſon, or of the atmoſpheric temperature. It was at its height during the prevalence of the ſouth wind and of the rains; it proceeded during the intenſe and dry cold, and began to decline, and at laſt ceaſed, during the ſame rainy and ſoutherly conſtitution of the weather under which it had reached its height.

The diſeaſe began in the worſt ventilated and moſt unhealthy part of the city. Surrounded on all ſides by lofty buildings, defended from every wind, filthy from the offals of fiſh and butcher-meat, and filled with ſtagnant putrid exhalations, it ſeemed as if it were contrived to be the ſeat of ſuch a diſeaſe; and yet its progreſs was ſlow and almoſt inſenſible, the deaths not amounting to more than one or two a-day for about a month.

The ſmall number of ſick, and the circumſtance of Leghorn being ſubject, by its local ſituatution, to diſeaſes of a malignant and bilious nature, cauſed the diſeaſe to paſs for ſome time unobſerved, or at leaſt rendered its nature doubtful and diſputed. It then made ſome progreſs, but always ſlowly and difficultly, along certain narrow ſtreets and lanes, ill ventilated, with high, confined, and filthy houſes, crowded with inhabitants of the pooreſt claſs. From this time the ſame intercourſe between theſe ſtreets and the reſt of the city continued; the individuals of thoſe families in which the diſeaſe exiſted daily mixed with thoſe of the healthy in all parts, and the exchange and communication of goods and effects continued free and uninterrupted.

With regard to the important ſubject of the manner in which this fever was propagated, Dr Palloni ſtates it to be the reſult of his reſearches, that it was never communicated from one individual to another by goods or any other infected ſubſtances, but only by the approach of the healthy to the ſick; and even to this there were innumerable exceptions, ſo that a particular prediſpoſition ſeemed to be neceſſary to receive the infection. Of the prieſts who attended the ſick only one died; of the numerous practitioners of the healing art, only three. There were many examples of wives ſleeping with their ſick huſbands without being infected, of numerous families in which only one was infected, of children ſucking their mothers, till within a few minutes of their death, with impunity. But, beſides this particular prediſpoſition, it appeared to be another eſſential condition for receiving the infection, that the perſon from whom it was received ſhould be ſituated in a cloſe, filthy room, filled with confined and impure air. Hence, among the poor in that part of the city where it raged, many of the ſame family and houſe died, while, in the other ſtreets, it was confined to one houſe, or one individual of a family. Hence in the hoſpitals no one attendant periſhed, and hence the diſeaſe was not communicated in them to patients labouring under other diſeaſes.

Dr Palloni is of opinion that it is eſpecially with the tranſpiration that certain deleterous principles emanate from the bodies of the diſeaſed, capable of exciting the ſame diſeaſe in others, who reſpire or abſorb them in particular circumſtances, and that theſe principles are eaſily deſtroyed by the contact of pure and renewed air; but that mephitic, ſtagnant air, in which they are accumulated, becomes an excellent conductor, and facilitates its communication.

There cannot be adduced a ſingle inſtance in which the infection was conveyed by ſubſtances which had been in contact with the ſick, and there were many examples of individuals and whole families having continued to inhabit the room, or to ſleep in the very bed, in which a patient had died. Not one of thoſe employed to clean the houſes of the ſick were atta[illegible]d, nor did any of thoſe who buried the dead fall a victim to the diſeaſe.

Conſiſtently with theſe well-eſtabliſhed facts, and ſince, even in the city of Leghorn itſelf, the diſeaſe was ſo partial, ſo limited, ſo ſlow, nay, even ſo difficult to be communicated, it is no wonder that it did not extend to the ſmalleſt diſtance beyond Leghorn, although the commerce continued uninterrupted, and the French garriſon, ſeveral of whom had contracted the diſeaſe, removed to Piſa when the diſeaſe was at its height, and 8000 of the inhabitants emigrated to Piſa and the neighbouring country. Of theſe ſeveral already infected died of the diſeaſe, but in no inſtance did they communicate it to thoſe around them.

Dr Palloni therefore infers,

1. That the epidemic of Leghorn, in its ſymptoms, progreſs, and appearance, was analogous to the *typhus icterodes* of Sauvages and Cullen; but that, in the ſlight degree of contagion which it exhibited, in its comparatively ſmall mortality, and in having in

general required the antiſthenic method of cure, it differed ſomewhat from the peſtilential diſeaſes deſcribed by theſe authors under that name, and approached to the ſpurious and leſs contagious ſpecies deſcribed by Anderſon, Jackſon, and others.

2. That, for the reception of the infection, a particular prediſpoſition in the individual, and actual communication with the ſick, in a ſmall apartment, and in a confined and impure atmoſphere, were neceſſary.

3. That the contagious fomites were eaſily deſtroyed by the contact of pure air.

4. That the contagion was never conveyed by goods of any kind. And,

5. That the diſeaſe was very limited in Leghorn, and did not extend beyond it.

Dr Palloni concludes this very intereſting publication with ſtating, that, notwithſtanding the mildneſs of the diſeaſe, and the difficulty of its propagation, the ſame precautions were employed as if it had been the oriental plague, and that ſo long a time has elapſed ſince the city was reſtored to perfect health, that the keeping up the cordon any longer, for preventing any communication with the reſt of Tuſcany, would not only be unneceſſary, but unjuſt and cruel.

To give greater authority to his ſtatement, Dr Palloni has ſubjoined the ateſtations of all the principal medical men of Leghorn.

VII.

A General View of the Writings of Linnæus. By RICHARD PULTENEY, M. D. F. R. S. The ſecond edition, with corrections, conſiderable additions, and Memoirs of the author. By WILLIAM GEORGE MATON, M. D. F. R. S. &c. &c. To which is annexed the Diary of Linnæus, written by himſelf, and now tranſlated into Engliſh, from the Swediſh Manuſcript in the poſſeſſion of the Editor. 4to. pp. 595. London. 1805.

THE inſeparable connexion of natural hiſtory with medicine, independently of the circumſtance that many of the writings in queſtion relate to ſubjects ſtrictly medical, would render any apology for briefly introducing this volume to the notice of our readers unneceſſary. The value of the writings of Linnæus can only be ſufficiently eſtimated by comparing the ſtate and progreſs of natural knowledge, during the ſhort period which has elapſed ſince their completion, with the unimproving ignorance that prevailed on theſe ſubjects during the many centuries that preceded it. Within that ſhort period the knowledge of nature has been diſſeminated with incalculable rapidity; and the perfection to which it has attained has been limited only by the phyſical difficulties which exiſt to the exploring of diſtant and inhoſpitable climates. The readineſs with which naturaliſts, educated in other ſyſtems, and habituated to other language, adopted the arrangement and nomenclature of Linnæus, is another deciſive teſt of the obvious facilities and advantages which reſulted from the latter.

In republiſhing the work of his friend, Dr Maton has amply availed himſelf of the great opportunities of information which have fallen to his lot; and, by means of the numerous and valuable additions (which have extended the original ſmall work to its preſent ſize), he has put into our hands a very complete view of the ſtate of Linnæan ſcience and literature up to the preſent time. The poſſeſſion of ſuch an authentic ſource of information as Linnæus's own Diary has enabled him to adduce many new particulars connected with the purſuits and writings of the great naturaliſts, which, together with ſeveral judicious alterations in the order of detail, have converted the biographical ſketch given by Dr Pulteney into a comprehenſive chronological account of the principal occurrences of his public life.

The acuteneſs and indefatigable activity of the mind of Linnæus, which were conſpicuous on all occaſions, and of which he ſeems to have been fully * ſenſible himſelf, were particularly evinced in the formation of the great vegetable ſyſtem, which muſt be conſidered as his *chef d' œuvre.* His firſt work, which does not appear to have been publiſhed (the original manuſcript is now in the hands of Dr Smith), was a little catalogue of his botanical obſervations, entitled *Spolia Botanica*, and dated 1728. In this the plants are arranged according to the ſyſtem of Tournefort and he had not then conceived any notion of reforming the claſſification of vegetables. About a year afterwards "he read, in the Leipſic Commentaries, a review of Vaillant's treatiſe on the ſexes of plants, by which his curioſity was excited to a cloſe inveſtigation of the *ſtamina* and *piſtilla;* he obſerved that theſe

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[*] The following, among numerous ſelf-commendations of this ſort, occurs in his Diary. "In the year 1765, he worked at the 12th or laſt edition of the *Syſtema Naturæ*, and, the whole of the autumn, on the *Clavis Medicinæ*, which *would have employed the moſt learned men for an age.*"

theſe parts of the plant were of eſſential importance, and that they varied as much as the petals. Hence he formed the deſign of conſtituting a new ſexual method." *(Diary.)* In three years from this time, this method, comprehenſive as it is, and erected on ſuch a multitude of obſervations, was ſo completely matured in his mind, that the plants collected in his journey through Lapland were arranged, according to the ſexual plan, in the catalogue entitled *Florula Lapponica*, which he publiſhed on his return in 1742. The *Flora Lapponica*, it may be obſerved, was not publiſhed till five years afterwards, and the *Lacheſis Lapponica*, containing a general account of the journey, never appeared. Dr Pulteney, more than once, laments that this work was, in all probability, loſt for ever to the world: but we have the pleaſure to find it ſtated by the editor, that the manuſcript is in the poſſeſſion of Dr Smith, and that a tranſlation of it will ſhortly be publiſhed.

In his analyſis of the great monument of the genius and induſtry of Linnæus, the *Syſtema Naturæ*, Dr Pulteney had given ſhort generic characters of the ſubjects comprehended under the firſt four claſſes of the animal kingdom only. Dr Maton has now extended the catalogue of theſe characters through the two remaining claſſes, the *Inſecta* and *Vermes:* he has alſo annexed to each order, through the whole of the animal kingdom, abbreviated characters of the new *genera*, which have been formed in conſequence of the numerous diſcoveries of modern naturaliſts. But the great additional value which this edition poſſeſſes, is in its accurate references, not only to all the editions of the works of Linnæus, but alſo to all the works of ſucceeding writers, whoſe reſearches have contributed in any degree to the extenſion or improvement of the ſyſtem, or to the enlargement of the boundaries of natural hiſtory.

It is a matter of ſome intereſt to obſerve the numerous additions which have been made to the large catalogue of objects detailed by Linnæus, and the rapidity with which they have been collected and aſcertained. This rapid accumulation of knowledge relative to the productions of nature, heretofore unknown, is to be attributed partly, no doubt, to the more general diffuſion of ſcience among thoſe who are led to diſtant countries, but in a great meaſure alſo, as the editor juſtly remarks, to that peculiar facility of accurate diſcrimination which the Linnæan ſyſtem itſelf has introduced. The claſs *Mammalia*, as left by Linnæus, contained about 230 *ſpecies*. Since that time eight new genera have been conſtructed, and the ſpecies are now increaſed to 600 in number. In the claſs *Aves* a conſiderable extenſion has been made, particularly by the labours of Dr Latham, on whoſe ſcientific works the editor beſtows a well-merited eulogium. Dr

Latham has ventured ſo far to alter the Linnæan arrangement as to conſtitute four new orders; and he has increaſed the number of ſpecies to conſiderably more than 2,500, of which 500 at leaſt were firſt deſcribed by himſelf. In the laſt edition publiſhed by Linnæus (the 12th), this claſs comprehends about 930 ſubjects only.

On the topic of *Inſects* (a branch of natural hiſtory which, before the time of Linnæus), was nearly without method, a writer of conſiderable ingenuity and induſtry has lately appeared, whoſe generic diſtinctions are conſidered by many naturaliſts as preferable to thoſe of Linnæus; we mean Fabricius. He has invented a new arrangement, in which the *inſtrumenta cibaria*, or different parts and appendages of the mouth, are choſen as the chief baſis of diſcrimination. Dr Maton is not diſpoſed to recommend this new method; on the contrary, he is of opinion that "Villers has rendered great ſervice to entomology, and to Linnæan ſcholars in particular, by reducing the ſpecies of Fabricius to a conformity with the *Syſtema Naturæ;* and that thus no ſmall part of the confuſion which would otherwiſe again have taken place in this branch of natural hiſtory, has been prevented." * It muſt indeed be univerſally allowed that the change of a nomenclature, which has become the common language of the learned throughout the world, can only be countenanced on the ſuppoſition that the arrangement with which it is connected abounds in defects, or that the adoption of a new ſyſtem will be attended with permanent advantages, that will more than counterbalance the impediments which muſt for a long period neceſſarily enſue from the attempt. The ſpecies of inſects deſcribed by Gmelin amount to nearly 11,000.

The claſs of *Vermes* has alſo been much extended by the labours of various naturaliſts, to whoſe works the editor refers. The diſcoveries of Muller have not only multiplied the ſpecies of animalcules, but rendered it neceſſary to conſtitute a new order for them, which has been deſignated by the title of *Infuſoria.* This order, as it ſtands in the 13th (or Gmelin's) edition of the *Syſtema,* contains 18 genera, the characters of which are here detailed, and 129 ſpecies; it includes, however, the Linnæan genera of *Vorticella* and *Volvox.* In the edition juſt alluded to, conſiderably more than 6000 *vermes* are deſcribed.

In the catalogue of the vegetable kingdom, with the exception of the claſs *Cryptogamia,* the diſcoveries of future inquirers were not likely to give riſe to any conſiderable changes, except in the number of plants deſcribed, the conſequent formation of new genera, and the occaſional transference of ſome of the ſpecies to different genera, according to new relations, which might be aſcertained.

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* This book is entitled "*Caroli Linnæi Entomologia, &c. &c. curante et augente* Carolo de Villers," and was published at Leyden in 1789.

certained. Changes of this ſort have, in fact, been extremely numerous. In the laſt edition publiſhed by Linnæus, the number of ſpecies amounts to above 7,800; the ſubſequent edition by Gmelin comprehends at leaſt 17,000 ſpecies. In the claſs *Cryptogamia*, the curious and important reſearches of Hedwig have thrown conſiderable light on the fructification of the *Muſci* and *Algæ*, which led him to propoſe an alteration in the diſtribution of theſe orders; and his arrangement has been more or leſs followed by moſt botanical writers of the preſent period. In regard to the *Fungi*, the later editors of Linnæus, aſſiſted by the labours of Schäffer, Bolton, Bulliard, and others, have been enabled to improve the diſtribution of that order very materially; and an entirely new arrangement has recently been attempted by Dr Perſoon (ſee *Tentam. Diſpoſitionis Method. Fungor. Lips.* 1797), of which, however, Dr Maton has not given any abſtract.

Theſe alterations of the *Syſtema Vegitabilium*, being founded on phyſiological inveſtigation and progreſſive diſcovery, are juſtly conſidered by the editor as legitimate and neceſſary reformations; but he appears to doubt the propriety of adopting thoſe changes which affect the general *claſſification* of Linnæus, eſpecially the reduction of the number of claſſes to 20, in the manner practiſed by Prof. Thunberg, Gmelin, Withering, &c., and probably by Dr Willdenow, in the edition now publiſhing. Facility of inveſtigation is the great object of claſſification; and we have ſome reaſon to apprehend that the ſtudent of botany meets with greater obſtacles to his reſearch in the claſſes of *Monæcia, Diæcia*, and *Polygamia*, than in almoſt any other portion of the ſyſtem; and that the incorporation of theſe three claſſes with the others, according to the number of *ſtamina* in the reſpective genera, would tend in part to remove thoſe impediments to botanical ſtudy. Perhaps the proſcription of the claſs *Gynandria* is not ſo defenſible. The plants of the firſt order at leaſt conſtitute a natural aſſemblage of ſuch peculiar appearances, that the ſtudent, after having ſeen one, is ſcarcely under the neceſſity of examining the parts of fructification, in order to aſcertain their place in the ſyſtem. Dr Maton refers his readers to a diſſertation on the ſubject of theſe innovations in Uſteri's *Annalen der Botanik* for 1792, p. 20.

With regard to the diſtribution of *mineral* ſubſtances in the *Syſtema Naturæ*, the editor acknowledges that the 3d volume, in which it is contained, "from the highly improved ſtate of mineralogical knowledge at the preſent day, has ceaſed to be of any utility, except ſo far as it ſhows the uſe made by Linnæus of the materials to which he was limited, and as it illuſtrates the progreſs of ſyſtem." In the edition of Gmelin, indeed, that volume is no longer the work of Linnæus, but of Werner; and Dr Maton readily ſubſcribes to its ſuperior utility. He has given the outlines both of the Linnæan and Gmelinian ſyſtem, and abbreviated generic characters of the ſubſtances according to each method.

After a more ample analyſis of all the papers of Linnæus in the tranſactions of learned ſocieties, and in the *Amœnitates Academicæ*, than appeared in the former edition, Dr Maton concludes the volume with ſome obſervations on the honours which were paid to him on his perſon, character, and habits, and with ſome account of his family. The Diary occupies about 70 pages. It is curious on account of the detail of facts relative to a life of ſuch importance as that of Linnæus, and alſo as a ſpecimen of that ſort of biography, of which the writer and the ſubject are united in one individual. Like many other men of ſuperior talents, Linnæus appears to have been fully conſcious of his powers; and the ſuperlative ſelf-eulogy, which he has not ſcrupled to employ, but too clearly evinces that his *foibles*, " if, as the editor remarks, " it be neceſſary to record them," were vanity and a love of diſtinction. But theſe, perhaps, have ever been the leading motives of mankind to all great undertakings. " And who will charge this great man with having arrogated to himſelf merit that did not juſtly belong to him, or with having diſputed the pretenſions of others, becauſe they interfered with his own ?"

It is always intereſting to diſcover the efficient cauſes of the peculiar bias of great minds; and it may not be impertinent to ſtate, before we conclude, that the circumſtances which gave riſe to Linnæus's predilection for that ſcience, by the ſtudy of which his genius enabled him to immortalize his name, and to confer a moſt important benefit on mankind, are diſtinctly traced. He dates his love of botany in the Diary nearly from his cradle, having " almoſt lived" from that time in his father's garden. But the bent appears to have been particularly decided by a circumſtance which occurred ſo early as the age of four years. " He was ſcarcely four years old when he accompanied his father to a feaſt at Möklen, and in the evening, it being a very pleaſant ſeaſon of the year, the gueſts ſeated themſelves on ſome flowery turf, liſtening to the paſtor, who made various remarks on the names and properties of the plants. The child paid the moſt uninterrupted attention to all he ſaid and heard, and from that hour never ceaſed haraſſing his father with queſtions about the name, qualities, and nature of every plant he met with."

Dr Maton has prefixed to the work ſome well-written memoirs of his worthy and learned friend, the author of the original work, as well as two excellent portraits, the one of Linnæus, the other of Dr Pulteney.

VIII.

Obſervations on the Utility and Adminiſtration of Purgative Medicines in ſeveral Diſeaſes. By JAMES HAMILTON, M.D. Fellow of the Royal College of Phyſicians, and of the Royal Philoſophical Society, and ſenior Phyſician to the Royal Infirmary of Edinburgh. Edinburgh. 1805. 8vo. P. 320.

No rule of health is more generally aſſented to than that which inculcates regularity in the alvine diſcharge. There is none, perhaps, more generally overlooked; and to this neglect the phyſician has too often occaſion to refer the origin or aggravation of many complicated ailments. In moſt diſeaſes, the ſtate of the bowels claims much of our attention, and is ſeldom indeed diſregarded by the phyſician in his clinical inquiries, for no indication is more familiar than to obviate coſtiveneſs. But, with a few exceptions, there prevails in the minds of modern practitioners a cautious reſerve in the adminiſtration of purgative medicines to any extent beyond what that more ſimple indication may ſeem to require. The older phyſicians, though much leſs reſerved in the employment of purgatives, were yet fettered in their practice by the theories of the humoral pathology, and the doctrine of concoction, which dogmatically determined the periods of evacuation, and the kind of purgative fitted for the occaſion. It was common to purge freely at the decline only of acute diſorders, when the concoction of the humours was ſuppoſed to be completed. In other diſeaſes, the cure was intruſted almoſt entirely to purgatives, and theſe often of a very draſtic kind. The theory of diſeaſes is now founded on the pathology of the living ſolids, whence has ſprung the doctrine of debility, which, in its turn, embarraſſes our practice; and thus the fear of ſtill farther depreſſing the vital energies has, in theſe times, contributed to limit the uſe of free purging in many caſes, in which experience, undebauched by theory, might perhaps have ſanctioned the practice. Satisfied in general, by keeping the bowels as nearly as poſſible in a natural ſtate by gentle laxatives, or by clyſters, it muſt be acknowledged that, excepting in the few caſes where conſtipation from obſtruction or torpor of the bowels forms very palpably the chief part of the diſeaſe, the curative indications of modern practice do not often lead to the repeated adminiſtration of purgatives. Yet the benefit derived from purging in ſome tropical fevers, and in many of the diſeaſes of infancy, together with the pathology of morbid irritations, ſeemed well calculated to relieve practitioners from thoſe apprehenſions, which the Cullenian and Brunonian doctrines had engendered, and gradually to lead to a freer and more unreſerved exhibition of purgatives in other diſeaſes, in thoſe eſpecially where tonics, and antiſpaſmodics have ſo often diſappointed their hopes, and in which the trains of morbid actions are certainly aggravated, and perhaps kept up by, or aſſociated with, inteſtinal irritation, or with primary affection of ſome other of the abdominal vſicera.

Accordingly, of one diſeaſe of this claſs, which has very generally reſiſted the tonic plan of treatment, we have already, by the inſertion of Dr M'Mullin's paper on chorea in the firſt number of this Journal, had an opportunity of laying before our readers a few caſes moſt happily and ſpeedily cured at the Royal Infirmary of Edinburgh, by the repeated exhibition of powerful purgatives only, a practice firſt introduced by the enlightened author of the volume now before us. We well knew the value of that communication, becauſe we had witneſſed more than once the ſucceſs which attended the new plan of cure, contraſted with the failure of the old method; and were aſſured, therefore, that we diſcharged our duty to the public, in giving it an early place in a work profeſſedly undertaken to circulate and to preſerve improvements in the healing art. We now, therefore, ſincerely rejoice that Dr Hamilton, notwithſtanding his acknowledged unwillingneſs to appear in the character of an author, or, as he too modeſtly in our opinion, has ſaid, to obtrude himſelf on the public, has been induced to give a full expoſition of the peculiarities of his practice, derived from matured experience, and explained and ſupported by the moſt unqueſtionable proofs and illuſtrations. In theſe, indeed, our author has been ſingularly fortunate. Few practitioners have enjoyed ſuch opportunities of collecting accurate and extenſive information. For upwards of thirty years Dr H. has officiated as phyſician to the Royal Infirmary of Edinburgh, to George Heriot's Hoſpital, and to the two Maiden Hoſpitals. In the courſe of this extenſive experience, his obſervations on the utility of purgative medicines in certain diſeaſes were amply confirmed, while confidence was acquired in that practice he now ventures to recommend to the public. The number, authenticity, and appoſite application of the caſes adduced as proofs or illuſtrations of the utility of the obſervations delivered in the text, cannot fail, we think, to ſatisfy the moſt ſcrupulous; for theſe caſes are not the finiſhed pictures too often dreſſed up by an author from imperfect notes, to ſerve a particular purpoſe. The greater number are taken from the ſick journals of the Royal Infirmary, in which the daily reports of the phyſician are recorded at the patient's bed-ſide, before a crowd of intelligent ſtudents. Caſes of this deſcription, which, in their progreſs, cannot be perverted to particular purpoſes, and which cannot afterwards be altered by any retroſpective emendation of the practitioner, poſſeſs, it is juſtly remarked by Dr Hamilton, an authenticity peculiar to themſelves, and, in the eſtabliſhing of medical facts, may be produced as an authority that cannot be controverted. Other caſes, in farther illuſtration, are added from the author's private practice, and a few communicated by his friends. Experience, indeed, ſeems all along to have been the guide of Dr Hamilton, and to have ſuggeſted thoſe innovations in his practice which are now with ſo much candour ſubmitted to the judgment of the profeſſional public. Practical, however, as his obſervations are, ſanctioned by his own reſpectable authority, and confirmed by ſuch authenticated proofs, he ſolicits only the unprejudiced attention of the reader to the rules he has laid down, and refers the reſt to the impartial deciſion of experience.

In delivering ſome general introductory obſervations on purgative medicines, our author takes occaſion to remark, that modern phyſicians have two objects in view in the adminiſtration of this claſs of remedies; the one to empty the bowels ſimply by laxatives, the other to promote an increaſed ſecretion of fluids into the cavity of the inteſtines, or, in other words, to induce purging. Without approving the diſtinction thus made between laxatives and purgatives, inaſmuch as the ſame medicines, according to the doſe in which they are employed, are calculated to produce the one or the other effect, he wiſhes it to be underſtood that the medicines employed by him in the diſeaſes of which he is to treat, from experience of their ſuperior uſefulneſs, are purgative ones, while, at the ſame time, he avoids their full effect of purging; and this conſideration, he thinks, obviates the objection made to the employment of purgative medicines, that they reduce the ſtrength of a patient already too much weakened. But, in the diſeaſes of which he is to ſpeak, the ſole intention being to bring off the contents of the bowels, which are out of the courſe of circulation, and are already in a manner extraneous to the body, purgative medicines, given under ſuch limitation, can hardly be ſuppoſed capable of inducing debility; we might as well, Dr H. adds, expect it from emptying the urinary bladder.

We would not willingly cavil with a writer for whom we feel ſo much reſpect; but we cannot avoid making two remarks in this place. And, *firſt*, we muſt obſerve, that if the remedies employed do no more than bring off the contents of the bowels, which are, in a manner, extraneous to the body, they ought, in the terms even of Dr Hamilton's explanation, to be deemed rather laxatives than purgatives. But the deſire of avoiding the haſty objection which has been urged againſt the employment of purgative medicines has inadvertently, we imagine, led Dr Hamilton to make this obſervation. For the practice which is afterwards recommended in ſome diſeaſes, as in chorea, for example, does much more than unload the bowels; the remedies employed are truly purgative; and ſuch continued evacuations would aſſuredly, in a ſyſtem not diſeaſed, induce very conſiderable debility. One or two purgatives given occaſionally, and at intervals, would, we apprehend, in moſt caſes, be ſufficient to bring off the contents of the bowels which are out of the courſe of the circulation; but conſtant evacuations, kept up for days and weeks together by very powerful draſtic medicines, muſt be attended with an increaſed ſecretion of fluids into the cavity of the inteſtines, as indeed manifeſtly appears from the liquid and diſcoloured ſtools noticed in many of the hiſtories related in the Appendix.

We remark, in the *ſecond* place, that objections drawn from any reaſoning *à priori*, or from a knowledge even of the general effects of any claſs of remedies, muſt yield to experience in particular caſes. And thus, although the general effects of purging be confeſſedly debilitating, we have little to fear in thoſe caſes where experience has diſcovered their uſefulneſs. Debility is itſelf an effect of diſeaſe, and, when the diſeaſe is removed, the ſtrength and vigor of the ſyſtem will return. Have we not often ſeen the debility which attends ſome of the complaints of infancy removed, as well as the diſeaſe of which it was a ſymptom, by evacuating the bowels by calomel? And nauſea and anorexia, with all the depreſſing ſymptoms of dyſpepſia, how often alleviated by a briſk purgative? Not to mention here the experience of Dr Hamilton in other caſes. If we would follow out this practice on general principles, we muſt calculate the whole effects of our remedies. Sometimes we empty the bowels ſimply; at others we promote an increaſed ſecretion of fluids by purgative medicines. In ſome caſes it appears ſufficient to unload the bowels of their contents accumulated by long retention, and thereby relieve the ſyſtem from the effects of this local irritation; but in others, and eſpecially in thoſe in which a freer and more continued purging becomes neceſſary before the ſymptoms yield, we bring off not only the contents of the bowels which are out of the courſe of circulation, we eliminate alſo the ſecretory organs which terminate in the inteſtinal canal, the obſtruction, torpor, or deranged actions of which may have been a chief cauſe of the morbid actions of other parts of the ſyſtem. We are ſurely authorized to make this inference from caſes in which the purging is continued for three weeks, to the extent of three or four ſtools daily, with progreſſive relief of the morbid ſymptoms, with improved looks and ſtrength, and at length by the perfect cure of a complicated diſeaſe *. In other caſes, we find the cure advancing, with the diſcharge of fetid, fluid ſtools, of a bilious appearance, or black and greeniſh colour.

We believe the biliary organs to be not unfrequently intereſted in ſome of thoſe caſes in which a free uſe of purgatives has been found ſo advantageous. The biliary ſyſtem is often deranged in the diſeaſes of infancy and of childhood, in which purgative medicines are eminently uſeful, when they ſucceed in producing copious bilious dejections, as our own obſervation has more than once taught us. But, for proof of this remark, we have only to refer our readers to ſome of thoſe diſeaſes claſſed by Dr Hamilton under the title of *Maraſmus*, and particularly to the caſe of Malcolm Morriſon, publiſhed in the 4th number of the Appendix. This child, beſides being affected with many of the ſymptoms of acute hydrocephalus, ſuch as pain of the forehead, dilated pupils, frequent ſcreaming, picking of the noſe, hot ſkin, and frequent pulſe, complained of *pain of the right ſide*, near the falſe ribs, attended by a hard, dry cough, and the fæces were of a *gray colour, and clayey conſiſtence.* This caſe was ſucceſsfully treated by remedies, purgative in the ſtricteſt ſenſe of the word, daily adminiſtered for upwards of three weeks.

We have only to add, that we have ſeen caſes very like to this; and in one inſtance, which terminated fatally, on diſſection the liver was found inflamed, and the gall bladder and ducts loaded with dark-coloured bile. The many hiſtories of ſuppoſed hydrocephalus, recorded as cured by a very free uſe of calomel, reflects conſiderable light on the etiology and treatment of ſuch caſes.

We would be ſorry, indeed, to miſtake the indications, or to miſinterpret the practice of Dr Hamilton in the ſeveral diſeaſes of which he has treated in the volume before us. We may be wrong, but at preſent it appears to us, that the purgative

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* Caſe of chorea.—*Appendix.*

gative plan of treatment here recommended is not altogether limited to the diſcharge of the accumulated contents of the bowels which are out of the courſe of the circulation, and in a manner extraneous to the body. And we cannot help thinking that, in ſome caſes at leaſt, part of the uſefulneſs of purgative medicines ariſes from their emulging the biliary and other ſecretory organs not unfrequently obſtructed in chronic diſeaſes, and on the freedom of which the natural actions of the chylopoetic viſcera, and well-being of the whole ſyſtem, ſo much depend. Should we even be miſtaken in this opinion, it muſt at leaſt be prudent to keep in mind, that, whatever our intention may be, it is not ſo eaſy to limit the effects of purgative medicines; and that ſuch a continued courſe as, in theſe diſeaſes, appears neceſſary to evacuate the bowels, will very commonly alſo increaſe the uſual ſecretion of the inteſtinal fluids.

After theſe introductory remarks to which we have juſt referred, Dr H. proceeds to deliver, in diſtinct chapters, his obſervations on the utility and adminiſtration of purgative medicines in *typhus fever*, *ſcarlatina*, the *maraſmus of childhood and early youth*, *chorea Sancti Viti*, *chloroſis*, *hæmatemeſis*, in *hyſteria*, and *ſome chronic diſeaſes*. And, under the ſame titles, the reader will find, in a copious Appendix, a variety of caſes illuſtrating the practice recommended in the context.

1. In *Typhus*.—Clinical obſervations ſeem firſt to have ſuggeſted to Dr Hamilton the utility of purgatives in this diſeaſe. Antimonial medicines were, ſome years ago, much more frequently employed in fever than they are now; and during the prevalence of a typhus fever of more than uſual malignity at Edinburgh, in the year 1781, and which ſeemed to be imported by the Jamaica fleet, which arrived in Leith Roads in a very ſickly ſtate, Dr H. having frequently employed, in the worſt caſes, a powerful antimonial, the calx antimonii nitrata, which ſufficiently anſwered his expectation, remarked that it was beneficial only when it moved the belly. "The ſtools were black and fetid, and in general copious : on the diſcharge of theſe, the low delirium, tremors, floccitatio, and ſubſultus tendinum, which had prevailed, abated in ſome caſes; the tongue, which had been dry and furred, became moiſter and cleaner; and a feeble, creeping pulſe acquired a firmer beat." Hence he was led to ſubſtitute a medicine ſimply purgative for the antimonial, and to avoid the unneceſſary debility produced by vomiting and ſweating. More extended experience confirmed this judicious inference, and gradually led to the early employment and repetition of purgatives in typhus. The full and regular evacuation of the bowels relieves the oppreſſion of the ſtomach, and mitigates the

other ſymptoms of fever. Glyſters, the effects of which are limited to the rectum, are inadequate to this good purpoſe. It is neceſſary to relieve the whole extent of the inteſtines by purgative medicines, which at once carry off the load of feculent matter and vitiated ſecretions. "The object to be attained is the complete and regular evacuation of the offenſive feculent matter collected in the bowels, in the courſe of fever; within this limit the practice is ſafe and ſalutary. Of this I am aſſured, that I have had much ſatisfaction in the proſecution of it; and have not, in a ſingle inſtance, had occaſion to regret any injury or bad conſequence proceeding from it." As the intention of Dr H. in this practice is ſimply to unload the bowels, and to preſerve them in an open ſtate during the courſe of fever, daily purgatives are not neceſſary; it is ſufficient to give them occaſionally, carefully avoiding their full effect of purging, which, by increaſing the ſecretion of fluids, might lower the ſtrength of the patient. Thus managed, we obſerve, in the caſes related in the Appendix, the gradual abatement of the febrile ſymptoms, and the return of the powers of the ſyſtem, keeping pace with the free and regular evacuation of the bowels. Uſeful, however, as this practice is, it is not excluſively employed by Dr H. in the cure of fever. Emetics and glyſters, however, are ſeldom or never now uſed by him; and, for ſome years paſt, he finds wine leſs neceſſary than he formerly thought it was. The purgatives employed are calomel alone, or combined with jalap, jalap and its compound powder, aloes, the neutral ſalts, and infuſion of ſenna.

2. In *Scarlatina.*—Scarlatina, ſcarlatina anginoſa, and cynanche maligna, Dr H. is inclined to conſider as varieties only of one and the ſame diſeaſe, depending upon the varying nature and conſtitution of ſcarlatina, and upon extrinſic and contingent circumſtances. As ſome doubt, however, may be entertained with regard to cynanche maligna, he ſpeaks of it at preſent as a diſtinct diſeaſe, and conſiders it ſeparately from ſcarlatina. The practice in ſcarlatina recommended by different writers, or followed by different practitioners, is very various, and, to the young and inexperienced phyſician, muſt appear embarraſſing and contradictory. Scarlatina, however, is a diſeaſe of varying type, which aſſumes appearances very different in different epidemics, and even in different individuals, during the prevalence of the ſame epidemic. The general indications muſt therefore vary with the circumſtances of the caſe; and the reader cannot fail to be gratified by the judicious and inſtructive reflections of our author. The uſual prejudice, the fear of inducing debility, has deterred many from the adminiſtration of purgatives in this diſ-

eaſe. But the benefit experienced from theſe medicines in typhus led Dr H. to the employment of them alſo in ſcarlatina. Coſtiveneſs, too, he had remarked to be a common occurrence in this diſeaſe, while the contents of the bowels are generally more changed, and unnatural in their appearance, than in typhus itſelf. In the treatment of ſcarlatina he has accordingly experienced the beſt effects from the judicious adminiſtration of purgatives: The limits within which they are employed are the ſame as in typhus. They are uſeful not only in mitigating the fever, and relieving the ſymptoms of oppreſſion and debility during the courſe of the diſeaſe, they are advantageouſly perſevered in alſo towards the cloſe, with the view of obviating or removing that common and ſometimes fatal conſequence of ſcarlatina, dropſical ſwelling. "I have never," ſays our author, "witneſſed ſinking and fainting, as mentioned by authors, and ſo much dreaded by them; neither have I obſerved revulſion from the ſurface of the body, and conſequent premature fading, or, in common language, ſtriking in of the effloreſcence, from the exhibition of purgatives. Accordingly, in treating ſcarlatina, I have confided much in the uſe of purgative medicines; and no variety of the diſeaſe, as occurring in different epidemics, or in the courſe of the ſame epidemic, has hitherto prevented me from following out this practice to the extent which I have found neceſſary."

In *Cynanche Maligna* alſo, Dr H. recommends the exhibition of purgatives. The very objections brought againſt their uſe appear to him arguments in their favour; the intention being to free the ſtomach and bowels from an acrimonious feculent maſs, the irritation ariſing from which aggravates all the ſymptoms of the diſeaſe, and induces that exhauſting diarrhœa or dyſentery ſo much to be apprehended in cynanche maligna. Though his opinion of the utility of purgatives in cynache maligna be thus decidedly pronounced, Dr H. moſt ingenuouſly acknowledges that his experience in that diſeaſe has been limited, and cautions his reader that, in giving this opinion, he has departed from the rule which he had formed to himſelf. "It is a theoretical opinion," he adds, "and not ſo fully ſupported by experience, as to enable me to deliver it with confidence." But it is an opinion well authorized, we think, by his very extenſive experience in ſcarlatina and ſcarlatina anginoſa.

In the Appendix, N° 3. we are preſented with a very intereſting narrative of ſcarlatina, as it affected the children in George Heriot's Hoſpital in autumn 1804, and with other hiſtories confirming the utility of purgatives in that diſeaſe.

3. *In the Maraſmus of childhood and early youth*—The obſervations and reflections delivered in this chapter are of a very in-

tereſting nature. Under the title of Maraſmus, our author has arranged a variety of ſymptoms which are often obſerved to affect the young of both ſexes.

"A ſluggiſhneſs, and laſſitude on ſlight exertion, depravity and loſs of appetite, waſting of the muſcular fleſh, fulneſs of the features, and paleneſs of the countenance, ſwelling of the abdomen, an irregular and generally a coſtive ſtate of the bowels, a change in the colour, and odour of the fæces, fetid breath, ſwelling of the upper lip, and itching of the noſe, mark the beginning of the diſeaſe.

"When theſe ſymptoms have continued for ſome time, they are followed by alternate paleneſs and fluſhing of the countenance, heat and dryneſs of the ſkin, feeble and quick pulſe, thirſt, fretfulneſs, increaſing debility, and diſturbed ſleep, during which the patients grind or gnaſh their teeth, and are ſubject to involuntary ſtarting, and twitching of different muſcles."

This deſcription muſt be familiar to every practitioner. Various combinations, and many anomalous varieties of ſuch ſymptoms, occur in infancy and early youth, and, imitating often other diſeaſes, occaſion much perplexity in our diagnoſtics. They are commonly referred to the preſence of worms in the bowels; ſometimes to meſenteric obſtruction, and not unfrequently have ſo cloſely reſembled hydrocephalus, as to be miſtaken for that diſeaſe. But we are particularly indebted to Dr Hamilton for an obſervation of ſtill higher importance, that the diſeaſe in queſtion may, on ſome occaſions, give riſe to hydrocephalus, by impairing the vigour of the conſtitution, and by favouring ſerous effuſion into the ventricles of the brain. "This conjecture," he adds, "merits the greater attention on this account, that the ſymptoms of hydrocephalus reſemble thoſe of incipient and even of confirmed maraſmus, and have been removed by the diligent exhibition of purgative medicines. The truth of this obſervation has been repeatedly confirmed in my private practice, and it affords an additional reaſon for the exerciſe of watchful attention to prevent the confirmed ſtate of maraſmus, which may, in more inſtances than we are aware of, have been the forerunner, if not the cauſe, of hydrocephalus."

For the truth and importance of this remark, we muſt refer our readers to the caſes in the Appendix, and eſpecially to that communicated by Mr Ben. Bell, a caſe which was conſidered by the moſt experienced practitioners in conſultation as one of hydrocephalus, and actually treated as ſuch, but ineffectually, when pains in the bowels ſuggeſted the exhibition of a purgative, the relief obtained from which encouraged the repetition, till the ſymptoms and diſeaſe diſappeared. Caſes very like to this have come within our own obſervation; and, as we have already remarked, the number of ſuppoſed caſes of hydrocephalus, recorded as cured by the free exhibition of calomel, confirm this view of the ſubject. But Dr H. is alſo inclined to think, that maraſmus may lay the foundation of epilepſy. It is certain at leaſt that convulſions are not unfrequently a concomitant, or one of the fatal terminations of maraſmus. Amongſt theſe alſo might be enumerated various obſtructions of the abdominal viſcera and aſcites, obſtructions eſpecially of the liver and of the meſenteric glands. The opinion entertained by Dr H. of this diſeaſe is ſimple and ſatisfactory. Worms, though ſo conſtantly ſuſpected in theſe caſes, are not, in this country at leaſt, ſo uniformly met with, as to ſupport the opinion that the diſeaſe proceeds from this cauſe. Every phyſician will acknowledge how often this notion has diſappointed him; and we are well aſſured that the ſymptoms uſually attributed to worms often originate in other ſources of inteſtinal irritation. Our author's doctrine is, "that a torpid ſtate, or weakened action of the alimentary canal, is the immediate cauſe of the diſeaſe; whence proceed coſtiveneſs, diſtention of the bowels, and a peculiar irritation, the conſequence of remora of the fæces. I have accordingly been long in the habit of employing purgative medicines for the cure of this maraſmus; the object is to remove indurated and fetid fæces, the accumulation perhaps of months; and as this object is accompliſhing, the gradual return of appetite and vigour mark the progreſs of recovery."

Many other important obſervations are given by our author on this diſeaſe, for which the original muſt be conſulted. The purging plan muſt be actively purſued, and the doſes and repetition of the medicines muſt be determined by the effects and by the appearance of the evacuations, which Dr H. recommends to be daily inſpected.

4. *Chorea Sancti Viti.*—The practice recommended by Dr H. in this diſeaſe, we have already had an opportunity of introducing to the acquaintance of our readers. It conſiſts in the active exhibition of purgative medicines. And certainly when we conſider the almoſt uniform failure of the old method of treatment, and the very great ſucceſs which has attended the one now propoſed, we muſt acknowledge our obligations to Dr Hamilton for the improvement.

A compendious but excellent hiſtory of the diſeaſe, and ſeveral judicious reflections, which we will not here mutilate by attempting to abridge, precede the modeſt and candid ſtatement of thoſe circumſtances which inſtructed Dr Hamilton in the propriety of changing his practice, and which gradually led to thoſe views, and that method, the utility of which has now been confirmed by repeated experience. Coſtiveneſs is a prominent feature in this diſeaſe; and it may be inferred from the ſucceſs which has attended the exhibition of purgatives, that the phenomena of chorea Sancti Viti are induced and continued by the irritation of feculent ſordes accumulated in the primæ viæ. In the early ſtage of chorea, while the inteſtines yet retain their ſenſibility, and the accumulation of fæces is not ſo great, gentle purgatives repeated as occaſion may require, will readily effect a cure, or rather prevent the full formation of the diſeaſe. "In the confirmed ſtage more ſedulous attention is neceſſary. Powerful purgatives muſt be given in ſucceſſive doſes, in ſuch manner that the latter doſes may ſupport the effect of the former, till the movement and expulſion of the accumulated matter are effected, when ſymptoms of returning health appear. Whoever undertakes the cure of chorea by purgative medicines, muſt be decided and firm to his purpoſe. The confidence which he aſſumes is neceſſary to carry home to the friends of the patient conviction of ultimate ſucceſs. Their prejudices will otherwiſe throw inſurmountable obſtacles in his way. Half meaſures, in inſtances of this kind, will prove unſucceſsful; and were it not for perſeverance in unloading the alimentary canal, the diſeaſe would be prolonged, and recurring would place the patient in danger, and thus bring into diſcredit a practice which promiſes certain ſafety."

This confidence in our practice, and this perſeverance in the uſe of purgatives, it is of the greateſt conſequence to attend to, and therefore are much inſiſted on by Dr H. The torpor of the inteſtines in chorea is in many caſes truly aſtoniſhing. The caſes detailed in the Appendix are ample proofs of this. Thus we find 50 grains of the aloetic pills, taken in 24 hours, hardly ſufficient to occaſion one ſtool in a girl of 10 years old. On another day, the ſame child took 70 grains of the pilula ex aloe et colocynthide, beſides an ounce of Rochelle ſalt. And two days thereafter Dr H. found it neceſſary to preſcribe an ounce and a half of Rochelle ſalt, beſides ſix ſcruples of the compound powder of jalap, to be taken in the courſe of 24 hours; and this practice was almoſt daily repeated for ſix whole weeks, when a cure was at length obtained. But this was the moſt obſtinate caſe of all that have been cured by Dr H. For, by the practice here recommended, "chorea is ſpeedily cured, generally in 10 days, or a fortnight from the commencement of the courſe of purgative medicines."

This practice, ſince it became known, we may add, has been equally ſucceſsful in the hands of other phyſicians. Amongſt the caſes in the Appendix are two communicated by Dr James Home, the Profeſſor of Materia Medica, and one of the Clinical Profeſſors in this Univerſity.

5. *Chloroſis.*—The obſervations contained in this chapter have gratified us exceedingly. The conciſe hiſtory of chloroſis is more than deſcriptive. It has the ſtriking reſemblance of a picture, ſo admirably is every feature delineated. Nor are the reflections of our author on the pathology of this diſeaſe, and on the various opinions which have been entertained of its cauſes, leſs worthy of approbation: Having examined and refuted, to our ſatisfaction, the different theories of chloroſis, in order to prepare the reader for the candid conſideration of what he has to propoſe, Dr H. concludes theſe general obſervations by the following very juſt reflection, which we quote in his own words. "It would have been fortunate if medical inquirers had always followed the progreſs of diſeaſes ſtep by ſtep, and viewed them as a whole, from the firſt deviation of health to their termination. A contrary procedure has often betrayed us into confuſion and error. It is not the febrile ſtate that ariſes in maraſmus; it is not the involuntary convulſive motions that appear in chorea, that conſtitute either diſeaſe. Theſe are only ſingle features, but, being prominent ones, they have abſorbed the attention of practitioners; while the interrupted action of the ſtomach and bowels, and the conſtipated ſtate of the latter, the common origin of both diſeaſes, and the ſupporter of their various ſymptoms, have been almoſt altogether overlooked."

"In like manner, in chloroſis, the cacochymia of the juices, and that of the peculiar ſtate of the genitals affecting the whole ſyſtem with flaccidity and laxity, are evidently founded on the appearances which the diſeaſe exhibits when it is fully formed, and from which appearances alſo it has its name; when, at the ſame time, the hiſtory of its incipient ſtate has been little regarded."

"The ſlighteſt attention to the general hiſtory of the diſeaſe," Dr H. continues, "evinces that coſtiveneſs precedes and accompanies the other ſymptoms. Coſtiveneſs induces the feculent odour of the breath, diſordered ſtomach, depraved appetite and impaired digeſtion. Theſe preclude a ſufficient ſupply of nouriſhment at a period of growth when it is moſt wanted: hence paleneſs, laxity, flaccidity, the nervous ſymptoms, waſting of the muſcular fleſh, languor, debility, the retention of the menſes, and ſuſpenſion of other excretions, ſerous effuſions, dropſy, and death."

On this view of the ſubject, our author proceeds to explain ſome circumſtances connected with the diſeaſe, and then to ſtate the foundations of that practice he is about to recommend, from experience of its ſuperior uſefulneſs.

The conſtipated ſtate of the bowels ſuggeſts the adminiſtration of purgatives in chloroſis; they have accordingly been employed by phyſicians. But the experience of our author has led him at length to truſt to theſe medicines as to the principal means of cure. The method of adminiſtering purgatives in chloroſis is nearly the ſame with that recommended in chorea. "As in chorea, ſo in chloroſis, the quantity of feculent matter accumulated is often very great, and the movement of it a taſk of no ſmall difficulty."

"Of courſe, the ſame attention and aſſiduity in the exhibition of purgative medicines, which I have pointed out to be neceſſary in chorea, are equally demanded in chloroſis. The practitioner who is not aware of this, and who, yielding to the importunity of his patients, or to the caprice of their relations, does not ſteadily purſue this plan of cure, will be diſappointed, his abilities will be called in queſtion, and his practice vilified and neglected."

6. *In vomiting of Blood.*—A variety of hæmatemeſis (not dependent on any organic affection), which attacks females from 18 to 30 years of age, and which has commonly been deemed vicarious of the menſes, is the caſe conſidered by Dr Hamilton in his 6th chapter. He rejects the common opinion entertained of this diſeaſe, as ſuſpended menſtruation is not its neceſſary concomitant; this variety appearing ſometimes when the menſes are regular. Under the uſual routine of practice, this diſeaſe is of very uncertain duration. But ſince Dr Hamilton received the hint from Dr Gaſking of Plymouth, which ſuggeſted the adminiſtration of purgatives, his ſucceſs, "he aſſures us," has been ſo uniform, that he now lays it down as a certain poſition, that the proper exhibition of purgative medicines affords ſure and effectual means of removing the hæmatemeſis here ſpoken of.

"The purgatives which I have uſed in theſe caſes have never excited vomiting; and, what may be thought ſingular, I have never been able to aſcertain the preſence of blood in the fæces.

"The fæces which are brought off are copious, unnatural in colour, conſiſtence, and ſmell, as they generally are after long remora, the conſequence of obſtinate and protracted coſtiveneſs."

7. *In ſome Chronic Diſeaſes and in Hyſteria.*—"I have not aſcertained," ſays our author, "in how many various diſeaſes purgative medicines may be employed with advantage; but I

believe the range of their utility is greater than is commonly imagined."

The purging mineral waters are reſorted to by valetudinarians, from experience of their efficacy; and, in ſimilar caſes, Dr H. has found benefit from the adminiſtration of ordinary purgatives. A few caſes from the records of the Infirmary are given in the Appendix. We are preſented alſo with two caſes of hyſteria ſucceſsfully treated by purgatives. But his general obſervations on this diſeaſe are for the preſent withheld. "I may perhaps," he adds, "offer a future publication on the utility of purgative medicines; but my profeſſional avocations do not permit me to come under a poſitive obligation to do ſo."

We ſhall now conclude our account of theſe truly valuable obſervations, by expreſſing our hope, that no circumſtances may interfere to diſappoint the expectation thus raiſed of future communications from one whoſe judgment and candour, and long experience, ſo eminently qualify for extending our knowledge reſpecting the operation of thoſe medicines to which he has paid ſo much attention.

PART II.

MEDICAL INTELLIGENCE.

Second Report of the Board of Health.

THE uncertainty in which we remain reſpecting the poiſonous matter which excites the plague, or other ſimilar diſeaſes, neceſſarily throws a degree of obſcurity over any meaſures that may be adopted for its deſtruction. Some have relied upon ventilation, ſome upon fumigation, as the only remedy or ſecurity; ſome again have rejected both; ſome have adviſed that the houſes and furniture of a whole city ſhould be ſubjected to quarantine; while others, obſerving how entirely the diſeaſe has in certain inſtances ceaſed, although no means had been employed for its extirpation, have haſtily concluded that all meaſures of this kind were nugatory and troubleſome, and ought to be laid aſide.

In conſidering a ſubject of this kind, it is obvious, that we muſt not riſk the lives of our fellow creatures, through a confidence in any ſpeculative opinions which want the ſanction of experience. But even experience itſelf, which ſhould be our ſureſt guide, has been appealed to in ſupport of doctrines totally oppoſite to each other. Fully impreſſed with a ſenſe of theſe difficulties, we have endeavoured, in the following obſervations, to ſelect from the practice of infected places, what has been employed with the greateſt appearance of ſucceſs; and to correct the inartificial, or ſometimes prejudicial directions of antiquity, by the diſcoveries and improvements of later times.

In the zeal of individuals, and ſometimes of the magiſtrate, to deſtroy more completely all ſources of infection, it has been propoſed to burn clothes, furniture, and even houſes, in which the plague has been; but whenever this meaſure has been attempted to be carried into effect, it has been defeated by its own ſeverity. For, by giving occaſion to concealment, or to the ſecret removal of ſuch articles, there is reaſon to think more harm has been produced, than if no precaution whatever had been taken. On this ſubject, therefore, as well as in the ſeparation of ſick, moderate meaſures are not only more eaſy to be executed, but afford, in fact, a greater ſecurity to the public.

Expoſure to free ventilation in the open air, certainly diſſipates and renders inert the poiſon of the plague, but the length of time required is conſiderable, even on the ſuppoſition that forty days were always ſufficient for that purpoſe. Muratori indeed, ſays, that he, with ſome other reſpectable authorities, thinks 20 days may be long enough. Lib. 1ſt. chap. 9. p. 71.

The purification of goods in lazarettos has been almoſt entirely truſted to ventilation. Moſt of the articles of merchandiſe do not admit of waſhing, and nothing ſatisfactory in the way of fumigation has been introduced into practice.

But where other modes of purification are admiſſible, not only the time neceſſary for deſtroying infection may be much ſhortened, but the ſecurity thus obtained may, in many inſtances, be rendered much more perfect than could be done by the moſt protracted expoſure to the open air.

We therefore adviſe, that every article of apparel, bed-clothes, or houſehold-furniture, that has been expoſed to infection, and that will bear waſhing or ſcouring, ſhould be immerſed in water, previous to its removal from the infected chamber; and it ſhould be ſuffered to lie in the water till it can be boiled, and waſhed or ſcoured, which ought to be with as little delay as poſſible. All ſuſpicion of infection would thus be deſtroyed in a very ſhort time.

From on board ſhips, theſe things may be attached by a line, and thrown over into the water, where they ſhould remain an hour, or longer, before they are boiled and waſhed.

Some things, which perhaps would not bear boiling, might be fulled.

Waſhing machines, and fulling mills, are recommended, as particularly proper for the purpoſe of cleanſing infected goods without riſk to the perſons employed.

Such things as have been very near the perſon of the ſick, as linen, bed-gowns, bed-clothes, &c. and indeed every ſuſpicious article, ought to be removed only with a pair of tongs, or forceps, without handling.

Wherever the above directions can be put in practice, we recommend them in preference to all other modes of purification. But there are ſome articles, viz. mattraſſes, feather-beds, bolſters, and pillows, which either could not be put into water, or not, without great inconvenience, or not without much previous handling, by which a great riſk of infection would be incurred. For ſuch, therefore, ſome other mode of purification ſhould be uſed, or at leaſt in the firſt inſtance. With this view, recourſe has been had to fumigations.

In looking into the general practice on this ſubject, if implicit faith were to be given to all that is ſtated, it would ſeem as if fumigations, of almoſt any kind, would deſtroy the poiſon of the plague. Odoriferous woods and gums, ſweet herbs and flowers, aromatics, ſulphur, pitch, amber, aſſafœtida, arſenic, antimony, orpiment, and numerous other ſubſtances, have been recommended. The ſpeculative grounds upon which they have been employed may eaſily be gueſſed, but there are no ſatisfactory experiments to aſcertain their reſpective merits. Sulphur is conſidered as holding the firſt place, and probably with reaſon. Sulphur reduced to powder, and mixed with ſaw-duſt, or powdered charcoal, in the proportion of one part of ſulphur to two or three parts of ſaw-duſt or charcoal, ſhould be put in ſmall quantities in earthen pots, and theſe again ſhould be ſet in iron pots or braziers, in number according to the ſize of the apartments; or ſulphur and nitre, mixed in the proportion of ſeven parts of the former to one of the latter, make a good fumigation; the nitre muſt be well dried. The goods to be fumigated ought firſt to be expoſed to a ſtream of air, within the infected chamber, for 24 hours, in order to leſſen the riſk of the expurgators, and ſhould then be diſpoſed on lines, or otherwiſe, in the manner moſt favourable for receiving freely on all ſides the elaſtic fumes and vapour. The windows and other apertures ſhould then be well ſecured, and fire having been ſet to the fumigating materials, the operator muſt immediately retire, and the door muſt be ſhut. The room having continued to be cloſed up for 24 hours, the clothes ſhould then be taken out, and expoſed to a free current of air for other 24 hours; at the expiration of that time, ſuch things as have been only ſlightly expoſed to infection may be conſidered as purified; the things under circumſtances of ſtronger ſuſpicion, inſtead of being diſcharged, ſhould again be ſubmitted to a repetition of the ſame proceſs, and not conſidered as purified till the expiration of 24 hours from the time of their ſecond fumigation.

The lines upon which the clothes have hung may, for further ſecurity, afterwards be burnt.

If poſſible, the fumigation ſhould always be performed in the infected houſe, without which one of the principal objects in view would be loſt. But if, from want of accommodation in the confined parts of a town, or from any other cauſe, that cannot be done, it may become expedient to provide a public place for theſe purpoſes. We recommend the following plan:

That it ſhould conſiſt of,

1*ſt*.—An airing and ſorting-room, where the goods ſhould remain expoſed to the air ſix hours, during which time an inventory ſhould be taken, and a duplicate delivered to the owner.

2*d*.—A fumigating chamber, with lines and proper utenſils.

3*d*.—A ventilating houſe, or ſhed, with an addition of fires placed in different parts of the room, in number and ſize proportionate to the ſaid houſe, furniſhed likewiſe with lines, and admitting a free current of air.

The whole ſhould be encloſed with a double fence.

A ſuperintendant, clerk, and ſervants, would be neceſſary for this eſtabliſhment; and they ſhould be prohibited from all intercourſe for 20 days, ſubſequent to their lateſt expoſure to infection.

It is a circumſtance of no ſmall importance to determine what ſhould be done with the bed or matraſs on which an infected patient has been lying, and which may therefore be ſuppoſed in an eſpecial manner to have become impregnated with whatever it is that conſtitutes the infectious matter of the plague, or other epidemical contagious diſeaſe. After duly conſidering the danger to be feared, and the difficulties to be overcome, we have concluded the beſt ſecurity would be obtained by firſt fumigating theſe articles in the infected room, then tying them up, and carrying them in carts appropriated to the conveyance of ſuſpected goods to a houſe of purification, to be baked in an oven erected for that purpoſe, for 12 hours: they ſhould afterwards be freely expoſed to the air for 14 days.

In caſes of extraordinary ſuſpicion, or where the things are of little value, it might be adviſable to deſtroy them, the magiſtrate finding others in their place.

Wooden furniture may be firſt fumigated, and afterwards ſcoured.

Rooms ſhould be fumigated for 24 hours, then aired for other 24 hours, and afterwards ſcoured, and white-waſhed, or painted, eſpecially the parts which have been moſt expoſed to infection.

The fumigation with ſulphur, as above deſcribed, is at once the moſt efficacious and the cheapeſt; we therefore recommend it to be uſed in preference to all others. But, as the utmoſt caution is neceſſary in conducting the ſulphuric fumigation, it is adviſable that ſuch fumigation ſhould not be attempted but by thoſe who have been previouſly inſtructed in the proceſs, and appriſed of its danger; for it does not admit of the preſence of any living creature, as the fumes of the ſulphur would inſtantly prove fatal. Therefore other fumigations have been uſed in the apartments of the ſick. In place of the elaborate receipts of the older phyſicians, modern chemiſts have ſhown, that although the vapour of the vitriolic acid be inconſiſtent with animal life, yet the vapour of nitrous and marine acids may be employed with ſafety and convenience. Dr Carmichael Smyth has directed the fumes of the nitrous acid to be uſed in the wards of hoſpitals full of ſick; and M. Morveau Guiton has employed the fumes of the muriatic acid in the ſame way; but it muſt not be forgotten, that even allowing theſe acid vapours to poſſeſs all the virtues attributed to them in the diſeaſes againſt which they have been employed, it would be unphiloſophical, and contrary to the principles of juſt reaſoning, to infer that they muſt have the ſame virtues in other diſeaſes. Such is the ſubtile nature of all the poiſons generated in animal bodies, that we are totally ignorant upon what their properties and powers depend, and cannot, upon general principles, apply to one of thoſe poiſons which we have learned of another. We are led to make theſe obſervations, becauſe the language commonly uſed on this ſubject may lead to ſerious error. Contagion and infection are terms which expreſs the mode in which the poiſons are ſuppoſed to be applied to ſound perſons; but, by a common figure in language, they are often uſed to expreſs the figure itſelf, and ſuch poiſons go by the name of contagious and infectious, and what deſtroys contagion in one caſe, it has been inferred would deſtroy it in another; but there is no foundation for this broad concluſion. For example's ſake, we will ſuppoſe it proved that the acid of nitre or of common ſalt would deſtroy the poiſon of the jail fever; we cannot from thence infer that it would deſtroy that of meaſles, ſmall-pox, or the plague. Having premiſed the above reflections, we have no heſitation in recommending trial to be made of the vapour of the nitrous or muriatic acid in the apartments of the ſick, provided none of the precautions reſpecting ventilation, change of apparel, &c. recommended above, be neglected.

The nitrous acid vapour is diſengaged from nitre by adding to it vitriolic acid; and in like manner the muriatic acid vapour, by adding vitriolic acid to ſea ſalt.

Nitre reduced to powder, and vitriolic acid, in equal quantities, mixed in ſmall pots, and diſperſed through the wards of an hoſpital, diſcharge copiouſly the fumes of the nitrous acid, and the diſcharge is more rapid if the pot be placed in hot ſand.

Sea ſalt a little moiſtened	15 parts,
Acid of vitriol (of the ſpecific gravity of 1.7)	12 parts,

mixed in pots of a moderate ſize, which may be put in a ſand bath or not, at pleaſure, produce the acid fumes of the ſea ſalt in the manner recommended by M. Morveau Guiton.

At Woolwich, in the military hoſpitals, they have uſed a fumigation of the oxygenated muriatic acid, made in the following manner, under the direction of Mr Cruickſhanks:

Mangeneſe in powder	2 parts,
Common ſalt	4 parts,
Vitriolic acid (the ſpecific gravity of which in our Pharmacopœia is 1.85)	3 parts,
Water	1 part.

To a ſmall quantity of the mixture of manganeſe and ſea ſalt (ſuppoſe three ounces) the whole of the water (which, for that quantity, would be half an ounce) is added, and, to this put in a ſmall pot, (large enough to prevent any riſk from the ebullition of the materials) the vitriolic acid (in due proportion) is added at intervals, which will keep up for a day a diſcharge of the oxygenated muriatic vapour; the ſmell is not unpleaſant, and the vapour gives no annoyance either to the ſick or their attendants. Any of the three preceding modes of fumigation may be uſed in the apartments of the ſick, and every one may uſe his own judgment in deciding to which he will give the preference.

In the expurgation of houſes, it may ſerve, by way of example, to give, as an extreme caſe, the ſteps we would recommend in the purification of an hoſpital that had been uſed for the reception of perſons ill of the plague.

Every door and window ſhould be open for ſome time previous to the expurgators entering upon their buſineſs, that they may run as little riſk as poſſible. In the apartments, ſuch articles of linen apparel, bed-clothes, &c. as remained, ſhould directly be put in water, afterwards to be boiled. The bedſtead, beds, and other articles not admitting of this, ſhould be placed favourably for fumigation. The pots with the fumigating materials of ſulphur, &c. ſhould be properly diſpoſed, and the windows and doors, except one being all ſhut, fire ſhould be ſet to the pots. The door, left open for the retreat of the perſon that ſet fire to the pots, ſhould be ſhut as ſoon as he has made his eſcape, and the fumes ſhould be confined in the apartment for 24 hours; every apartment muſt undergo the ſame proceſs. The houſe ſhould afterwards be whitewaſhed with quick lime and water, and the floors ſhould be waſhed with a copious ſtream of water, for which purpoſe even the common fire-engine might be extremely uſeful.

It has been doubted how far the purification of any town ought to be extended; and univerſal purification of every houſe, and of all their contents, would not only be impracticable, but we have no reaſon to think it would be neceſſary. Thoſe houſes only ſhould be obliged to undergo purification in the manner above deſcribed, which have either held perſons who have been ill of a peſtilential diſorder, or which have received things ſuſceptible of infection from tainted places; likewiſe the purification of goods can only be neceſſary when they have been expoſed to the touch or exhalations of the ſick, or have beeen in contact with infected ſubſtances. Therefore the things contained in trunks, wardrobes, or ſtore-rooms, may be exempted from quarantine, even though perſons ſhould have died in the houſe, provided they have been locked up and ſealed by the magiſtrate, previous to the diſeaſe having entered the houſe.

The following obſervation is taken from Dr Ruſſel's hiſtory of the plague.

"In large commercial towns it may be matter of deliberation, whether it would not be a prudent meaſure for the merchants to ſhut up their warehouſes, depoſiting the keys with a proper magiſtrate; this, in many caſes, would render the purification of merchandiſe, as practiſed with infinite labour at Marſeilles, unneceſſary, and might contribute to a ſpeedier re-eſtabliſhment of commerce, becauſe ſuch merchandiſe, accompanied with authentic certificates, would certainly be leſs liable to ſuſpicion than ſuch as had remained in open warehouſes all the time of ſickneſs, and might therefore be exported with more ſafety."—And again, "Goods of a more ſuſpicious kind, which have not been thus ſhut up, might be ſent to the lazaretto to be aired, or perhaps be fumigated in the warehouſe."

The whole of the above regulations ſhould be conducted under the inſpection and direction of the magiſtrates. And where the parties are unable to defray the expenſe of purification, it ſhould be paid by the public.

An inventory ſhould be taken, and a watchman or guard placed at the infected houſe, till the purification is completed, and any loſs that may happen ſhould be made good by the public, from rates levied on the neighbourhood.

All perſons employed for the purpoſes here deſcribed, or for any other purpoſe by which they have been expoſed to infection, ſhould be obliged to go into a warm bath, and afterwards perform a quarantine of 20 days, before they are reſtored to ſociety.

What we have ſubmitted muſt be conſidered rather as a ſketch than a detailed plan of purification and expurgation; yet if the general principles of deſtroying the poiſon by ventilation, waſhing, and fumigation, be kept in view, it will not be difficult to adapt them to all caſes that may occur. JA. HERVEY, *Sec.*

Board of Health, April 30. 1805.

Vaccine Pock Inſtitution, Broad-Street, Golden-Square.

GENERAL Quarterly Court, November 5. :—*Reſolved*, That, according to the experience of the medical eſtabliſhment of this inſtitution, it appears that the inoculation for the cow-pock affords ſecurity againſt the ſmall-pox equally with variolous inoculation, and that the new practice poſſeſſes all the advantages already ſtated to the public.

Reſolved, That, in order to give a further proof to the public, and to afford an inducement for information adverſe to the new practice, the following propoſal be made public, viz.

That, in future, every patient who ſhall be vaccinated at this inſtitution, on diſcharge, ſhall receive a certificate, ſtating, that ſuch patient has gone through the cow-pock, and engaging, that if hereafter the ſaid patient ſhall take the ſmall-pox, he or ſhe ſhall be entitled to the ſum of five guineas, to be paid from the funds of this inſtitution, at the firſt general court, after the proofs have been given, according to the rules of the medical eſtabliſhment.

Drs Pearſon, Nihel, and Nelſon, *Phyſicians.*
Tho. Payne and John Heaviſide, Eſqrs. *Treaſurers.*
T. Keate, T. Payne, and T. Forreſter, Eſqrs. *Conſulting Surgeons.*
J. Gunning, J. Conſt. Carpue, and J. Doratt, Eſqrs. *Surgeons.*
F. Rivers, E. Brande, and P. D. Bruyn, Eſqrs. *Viſiting Apothecaries.*
WILLIAM SANCHO, *Secretary.*

THE friends and pupils of Deſſault and Bichât have opened a ſubſcription at Paris to erect a marble monument, and ſtrike off a medal, to the memory of thoſe illuſtrious ſurgeons.—Prof. Kurt Sprengel, of the Univerſity of Hallé, is engaged in writing a Hiſtory of Surgery.—Prof. Loder of Hallé, formerly of Iena, is preparing for the preſs a Series of Anatomical and Surgical Obſervations, including a deſcription of ſome remarkable pathological facts, with drawings of the moſt intereſting preparations in his valuable collection. This ſplendid work will be entitled *Obſervationes Academicæ*, and the text will be in Latin.—Prof. Soemmering, who has been invited by the Elector of Bavaria to Munich from Frankfort, has juſt finiſhed another part of his Deſcription of the Senſes, comprehending the organ of hearing, and illuſtrated with many beautiful plates of the ear. This diſtinguiſhed anatomiſt is now engaged in preparing a work on the tongue and the organ of taſte. We take this opportunity of expreſſing our ſatisfaction at having diſcovered that our remarks on the inconvenience ariſing from the text of theſe ſplendid faſiſculi being publiſhed only in German, are incorrect; for we have ſeen a copy of that on the eye, with the text in Latin, entitled "Icones Oculi Humani." Dr Edmondſton will ſhortly publiſh "An Inquiry into the contagious nature of Ophthalmia; with a hiſtory of the ſymptoms and treatment of ocular Inflammation in general."—Dr H. S. Jackſon has in the preſs "Practical Reflections and Conjectures on the febrile epidemic Diſeaſes of Gibraltar, with compendious obſervations on Fevers in general, particularly the Yellow Fever of tropical climates; forming the ground-work of a new inquiry, on ſyſtematic principles, into the nature, tendency, and treatment of all the commonly ſuppoſed contagious, malignant, and epidemic fevers."

Extract of a Letter from Geneva, November 3. 1805.

"When Pacchioni's account of his diſcovery was read to the National Inſtitute of France, Biot and two other members were named for the purpoſe of repeating the experiments on which the diſcovery was ſaid to be founded. This they did, and made their report accordingly. Biot read his report not long ſince at the Society of Natural Hiſtory at Geneva. He concluded that Pacchioni, as well as the Engliſh experimentaliſt, had been deceived, and that, if the experiment be made with every previous precaution neceſſary to exclude the preſence of ſea ſalt, no muriatic acid will be found in the reſult.

Premiums propoſed by the Univerſity and Imperial Academy of Wilna in the year 1805.

CLASS OF MEDICAL SCIENCE.

PREMIUM I.

Beſides the diabetes mellitus of medical authors, are there any other diſeaſes peculiar to man, which, according to accurate obſervations, produce in different organs a ſecretion of a ſaccharine nature, and ſufficiently abundant, that its diſcharge finally occaſions conſumption? and what are theſe diſeaſes?

The prize conſiſts of 100 Dutch ducats.—Eſſays will be received till the 1ſt of September 1806.

The antients were not unacquainted with a ſpecies of conſumption accompanied with a prodigious loſs of urine, inſupportable thirſt, and an extraordinary dryneſs of the ſkin; ſymptoms which almoſt always terminated in a general dropſy, or in fainting-fits, which proved mortal. The Grecian phyſicians conceived that this diſeaſe reſembled much the effects produced by the bite of a venomous ſerpent,

pent, called dipſas (coluber dipſas Linn.) and for this reaſon they diſtinguiſhed this diſeaſe by the name of dipſas or diabetes.

It is now more than a century ſince it was obſerved that the urine produced in this ſingular malady had, in almoſt every caſe, the ſmell, and likewiſe, in ſome meaſure, the ſweetneſs of honey; hence they gave the name of diabetes mellitus to this ſpecies of diabetes, in order to diſtinguiſh it from another much more rare, called diabetes inſipidus.

Afterwards it was aſcertained by chemical analyſis, that the urine in the caſe of diabetes mellitus contained a conſiderable quantity of ſaccharine matter. The gradual decay and conſumption in the patient were attributed to the continual and abundant loſs of this matter which appeared to conſtitute the nutritive principle in the aliment.

Theſe diſcoveries have ſcarcely tended to diminiſh the almoſt certain mortality of perſons attacked with this diſeaſe. Phyſicians, indeed, conſoled themſelves in ſome degree, by ſuppoſing that the diabetes was a malady ſo rare, that the greater part of experienced practitioners had never once met with it; and, nevertheleſs, the Academy well knows, that one of its members alone has had opportunities of obſerving this diſeaſe more than 15 times, which to him appeared to be more prevalent in warm climates than towards the north. There is then reaſon to believe, that very often phyſicians are not aware of this diſeaſe, and one example obſerved by Dr Rollo, where the urine of the patient attacked with an unknown conſumption, without being more abundant than in other complaints, was charged with a prodigious quantity of a ſaccharine principle (three ounces to the pound of urine), ſeems to demonſtrate, that the ſuperabundance of urine is not an eſſential or pathognomonic ſymptom of the diſeaſe called diabetes, and that it is poſſible that it may have proved fatal to patients, the nature of whoſe conſumption was unknown, more frequently than is ſuppoſed.

But, from obſervations on the vegetable kingdom, it appears that trees ſometimes experience a malady analagous to diabetes. Many fruit-trees are obſerved to emit gum; and if, on the one hand, the remarks of the gardener ſhow that cherry-trees, plumb-trees, ſubject to this exudation, are evidently exhauſted and periſh by a ſpecies of conſumption, on the other, chemiſtry has diſcovered that gums in general, and thick fluids, which iſſue from clefts in the bark of certain trees, as the aſh (fraxinus excelſior) which furniſhes manna, the birch (betula alba) contain a quantity, more or leſs conſiderable, of a ſaccharine principle. The leaves even of ſeveral trees, ſhrubs and plants, appear to ſuffer a ſimilar diſcharge. Hence they are ſo often obſerved to be covered with ſmall inſects, which appear to be attracted by this ſame ſweet and ſaccharine principle, which they ſeek for with avidity. The ants, which yield nothing to them in this reſpect, aſſemble in a body upon the ſame leaves, and by irritating the inſects, which they diſperſe, oblige them immediately to give up the mellifluous matter which they have juſt extracted from the ſurface of the leaves tainted and attacked, as it would appear, by a ſpecies of diabetes. Theſe conſiderations induce us to think that diabetes mellitus is not, perhaps, the only diſeaſe in which man is quickly deprived of the nutritive juices he derives from the vegetable kingdom. We are aſtoniſhed at a propoſition of Hippocrates, which ſtates, that in conſumption, the ſweet and ſaccharine ſavour of the unctuous matter in the ears of patients is a ſign of ſure and ſpeedy diſſolution: this ſtriking obſervation, which at ſo remote a period, would ſcarcely have been expected, has but once been confirmed after the lapſe of ſo many ages; and it would appear that the natural diſguſt which accompanies ſuch reſearches, and the inattention of many phyſicians to them, as requiring too conſtant application, were the principal cauſes why animal chemiſtry has been ſo long neglected.

And, nevertheleſs, many circumſtances appear to promiſe us an ample collection of facts from a more ſerious examination into theſe objects. For the preſent age, it was reſerved to ſubmit to the niceſt analyſis, not only the products of nature when in health, but alſo when diſeaſed. We are already in poſſeſſion of many very uſeful reſults derived from the chemical analyſis of humours generated in the human frame by diſordered, unhealthy ſecretion. We are not ignorant that we ought to be upon our guard not to conſider this alteration of the fluids as primitive, and as the cauſe of diſeaſes, of which it is commonly only a conſequence; but, in ſpite of this truth, it muſt be agreed, that there are circumſtances in the life of man where the ſecretion of fluids undergoes a conſiderable change without being apparent, and where this alteration produces either waſting, concretions, or effuſions, which may be conſidered as primitive diſeaſes. The diabetes mellitus appears to be one of theſe. But are there not other analogous complaints in which a ſaccharine matter, combined with other liquids, eſcapes in ſufficient abundance to deprive the human body of theſe alimentary principles, before they have become perfectly animalized? The ſweat called, hypothetically, *colliquative*, which is not peculiar to the decay produced by ulcerations of the viſcera, is it not, in ſome ſpecies of conſumption (tabes), analogous to the urine in the diabetes mellitus of authors? The obſervation that this ſame ſweat, collected by the help of a ſponge or napkins, diffuſes, in a ſhort time, a ſmell of vinegar, ſeems to ſhow that it alſo contains principles capable of vinous fermentation; as the water of patients attacked with diabetes furniſhes alſo a conſiderable quantity of carbonaceous principle, and even of alcohol. In ſome rare caſes, a commencement of cryſtallization obſerved upon the ſkin of perſons ſubject to copious ſweats, the viſcous and almoſt gummy nature of theſe in other complaints, their ſpecific or ſometimes acid odour, as in miliary fevers, and in diſeaſes incident to puerperal women, all point out the probability of the object in queſtion. But there are other complaints which heighten this probability much: Does not too great a ſecretion of milk (galactirrhœa) affect nurſes with conſumption? The flux called cæliac (fluxus cæliacus) furniſhes a whitiſh matter, which, for a long time, phyſicians ſuppoſed to be chyle, although it often exceeds conſiderably the quantity of that which the aliment, conſumed by the patients, could have furniſhed. But would not this matter be found to be endowed with the ſame principles as the urine of perſons attacked with diabetes? Does not the conſumption called pituitous by phyſicians, becauſe, on examination after death, the lungs were not ulcerated ſo as to have furniſhed the thick and white matter, the copious expectoration of which exhauſted, and was the cauſe of death to the patient, belong to the ſame claſs of diſeaſes? Does Leucorrhoea of long duration, and very copious, furniſh the ſame ſaccharine principles, ſince it weakens the patient much more than that of a fluid ſimply mucous would ſeem capable of doing? In order to obtain a ſolution of theſe problems, the Imperial Univerſity of Wilna ſubmits the above queſtion to the competition of medical gentlemen.

PREMIUM II.

What are the true characteriſtics and principal cauſes of that diſeaſe which, though not peculiar to Poland alone, is nevertheleſs called Plica Polonica? Are there any means of treating it with more ſucceſs than by the method hitherto known and employed? and what are theſe means?

The prize is 100 Dutch ducats.—Eſſays will be received till the 1ſt September 1807.

The plica (Plica Polonica) is not endemial alone in that country, the name of which it bears, but alſo exiſts in other provinces; while neither its true origin is yet determined, nor the cauſe, nor a method of cure ſufficiently ſatisfactory.—We are even not without works which treat of this diſeaſe, and, lately, it has been much elucidated by an author of merit.

Nevertheleſs, with all our knowledge of it, the plica ſtill prevails in many provinces, and though the method of cure employed in our time has in ſome caſes ſucceeded, yet in the greateſt number it has been otherwiſe. Therefore, the Imperial Univerſity of Wilna have determined to propoſe the above queſtion, in order to contribute, on its part, towards the extirpation of an evil ſo prevalent in the provinces. If, on the one hand, moſt European phyſicians are deprived of the opportunity of perſonally obſerving this ſingular malady, and conſequently of contending for the premium announced, on the other, the number of medical men who have it in their power to trace this endemic diſorder, and to try different methods for ſucceſsfully combating it, is ſo conſiderable, as to induce us to expect much from their patriotic zeal and experiment.

PREMIUM III.

What are the principal diſeaſes of vegetables? and what is the true analogy between theſe diſeaſes and thoſe of animals?

The prize conſiſts of 100 Dutch ducats.—Eſſays will be received till the 1ſt of September 1808.

The known works of nature conſtitute but two claſſes, eſſentially differing from each other; the firſt of which contains bodies organized and ſuſceptible of excitement; the ſecond, bodies deſtitute of all organization, conſequently deprived of the faculty of reacting when excited by external powers. According to this ſimple and natural diviſion, vegetables and animals belong to one family, differing only in their organization, and in its effects, when excited by external agents. Theſe beings, endowed with an unknown vital principle, undergo the ſame changes; they are engendered by individuals of their own kind; ſeparated from theſe, they vegetate; they are nouriſhed by preparing within themſelves their nutritive juices; they grow, they ripen, they engender by the ſame law by which they themſelves were engendered; and, arrived at old age, they inſenſibly quit their connexion with external agents; are no longer ſubſervient to their impulſe, but decay, and at laſt return to that chaos of amorphous and unorganized matters from which they ſprang. But theſe living beings, ſubject to the ſame laws of nature, equally ſuffer by the diſproportionate action of external cauſes, many derangements, which neceſſarily impair their functions. This ſtate of diſeaſe preſents more or fewer phenomena, external ſymptoms, the obſervation of which conſtitutes the ſcience of their ſufferings, or of their pathology. So long as the phyſiolgy of man was confined to the ſimple obſervation of the functions of his own body and of its parts, its progreſs was ſlow, and it was neceſſary to ſuſtain the ſtructure of this ſcience by the help of a great number of hypothetical pillars, dangerous in medicine. Scarcely had the attentive diſſection of other animals, and the examination of the divers functions of their parts taken place, than the phyſiology of man alſo made rapid ſtrides in the moſt intereſting diſcoveries. The ſame has taken place in pathology; and the examination of diſeaſes to which other animals are ſubject, and that of their principal cauſes and effects, has infinitely contributed to the more perfect knowledge of thoſe diſeaſes which afflict the human body. Why, then, ſhould we longer delay the moſt thorough examination of the principal diſeaſes of the vegetable world, the analogy of which with animals and with man himſelf appears in many points to be ſo decided? We know, for example, that the wounds of trees preſent the ſame phenomena as thoſe of animal bodies; that their nutritive juices eſcape by wounds they receive, as blood flows, from thoſe inflicted on a living part of the human body, and that, when this dangerous diſcharge is once ſtopt, a ſcar is formed, and the injured parts are regenerated by the ſame laws which contribute to the preſervation of animals.

We obſerve trees attacked with caries, gangrene, ſhrivelling, or atrophy, chloroſis, paraſitic inſects, &c. like the human body itſelf, and ſhould we ſtill doubt for a moment the utility or the neceſſity of an exact examination of the diſeaſes to which theſe living beings are ſubject, and ſo often ſacrificed? The Univerſity, therefore, thinks that the queſtion above propoſed merits the attention of all thoſe who feel an intereſt in the perfection of the pathology of the human race.

Account of Diſeaſes treated at the Public Diſpenſary, Carey-Street, from 31ſt Auguſt to 30th November, 1805.

ACUTE DISEASES.

	No. of Caſes.		*No. of Caſes.*
Quotidiana	1	Rubeola	2
Ephemera	2	Variola	7
Synochus	5	Varicella	2
Typhus	1	Scarlatina	1
Ophthalmia	1	Eryſipelas	2
Cynanche tonſillaris	7	Pertuſſis	5
Pneumonia	10	Catarrhus	71
Peripneumonia notha	5	Dyſenteria	10
Gaſtritis	1	Cholera	3
Enteritis	1	Febris poſt Partum	2
Rheumatiſmus	7	—— Infantium	4

CHRONIC DISEASES.

	No. of Caſes.		*No. of Caſes*
Cephalæa	9	Hæmatemeſis	1
Hemicrania	3	Hyſteria	4
Vertigo	2	Melancholia	2
Aſthma and Dyſpnœa	8	Epilepſia	2
Catarrhus Chronicus	47	Hemiplegia	5
Hœmoptyſis and Phthiſis	13	Rheumatiſmus Chronicus	29
Aſthenia	28	Pleurodyne	3
Dyſpepſia	41	Lumbago	5
Hepatitis Chronica	2	Hydrothorax	3
Icterus	2	Aſcites	4
Enterodynia	8	Anaſarca	8
Colica Saturnina	2	Tympanites	1
Tænia	1	Rachitis	1
Aſcarides and Lumbrici	7	Scrofula	2
Tabes Meſenterica	3	Syphilis	4
Diarrhœa	6	Strophulus	2
Phyſconia	1	Aphthæ	1
Nephralgia	2	Prurigo	3
Dyſuria	4	Lichen	3
Pyuria	1	Pſoriaſis	2
Hæmorrhois	4	Porrigo	1
Prolapſus Uteri	2	Impetigo	7
Menorrhagia	3	Scabies	5
Leucorrhœa	7	Herpes Chronica	1
Dyſmenorrhœa	1	Ecthyma	3
Amenorrhœa	6		

The weather during the month of September was regular, dry, and warm; in October it became moderately cold, with an almoſt conſtant north-eaſt wind, but with little rain; and during the preſent month there have been frequent thick fogs, together with occaſional froſt, and ſome heavy rains.

The ſmall-pox is ſtill very prevalent, but does not appear to be increaſing. It will probably follow its uſual courſe, and gradually become leſs general as the winter approaches*. It is chiefly the very ſevere caſes which apply to a public inſtitution, and the majority of thoſe in the foregoing liſt were of a very unfavourable ſort: the eruptions on the face were ſmall and numerous, and attended with a diffuſe erythematic redneſs; but on the body and extremities they were few in number, ſmall, acuminated, and never fully maturating; the extremities were generally cold, and the patients exceedingly reſtleſs and uneaſy. In one of the caſes, ſeveral large purple ſpots were intermixed with the ſcattered and imperfect puſtules on the third day of the eruption; hemorrhagies from the mouth and bowels ſucceeded, and the patient died on the 8th day.

The inſtances of cholera and bilious diarrhœa were but few; a circumſtance which (cool as the ſeaſon has been) may be conſidered as tending to confirm the obſervation, that theſe complaints do not originate from the uſe of the ſummer fruits; but that the *heat* is the common ſource of the fruit and the bilious diſeaſes.

Of nearly 470 caſes which the preceding liſt comprehends, about 200, or ſomewhat more than 2-5ths, are diſeaſes of the lungs. Catarrhal coughs, indeed, have prevailed through the greater part of the year; but during the month of November, and eſpecially in the third week, when there occurred ſome ſevere froſts, accompanied by thick fogs during the day, the number of theſe complaints ſuddenly and rapidly increaſed. In that week almoſt all the aſthmatics, who have been for ſome years annual applicants at the Diſpenſary, appeared at once; and their complaints ſeemed to be more ſevere than uſual. The caſes of pulmonary inflammation were not of the acute pleuritic ſpecies; and inſtances of what has been called *peripneumonia notha* have been more numerous than is uſual at the beginning of winter. In one caſe the latter diſeaſe was rapidly fatal; the reſt yielded to bliſters (with the internal uſe of antimonials and ſquills), without the uſe of the lancet. This diſeaſe, in fact, as it now appears in London, will not bear blood-letting: thoſe on whom it is employed almoſt invariably die. Such, indeed, is the general ſtate of the human conſtitution in this metropolis, that diſeaſes of a high inflammatory type are comparatively rare, and powerfully debilitating remedies are inadmiſſible in any complaints, in the ſame degree in which they are moſt advantageouſly adopted in the country.

It may be collected from the obſervations of Sydenham, that in the autumn, or towards its cloſe, a continued or remittent fever frequently appeared among the diſeaſes of that ſeaſon. He gives no name to this fever, but conſidered it as allied to, and deriving its character from, ſome previous or more prominent epidemic, ſuch as the dyſentery, tertian or quartan intermittent, &c. It was at this ſeaſon that the dreadful plague of 1665 occurred, and in September deſtroyed 8000 perſons in a week *. Dr Fothergill has alſo noticed the preſence of a continued or remittent fever about the ſame period of thoſe years to which his obſervations are directed †. And, according to the later obſervations of Dr Willan, the ſynochus, or mild fever of the ſummer months, was uſually ſucceeded by a typhus, which prevailed to a conſiderable extent. For example, during the period comprehended by our preſent Report, and in the ſame diſtrict, he noticed, in 1798, about 40 caſes of malignant fever; in 1799, no leſs than 54 caſes; and in 1800, above 80. The almoſt total abſence of fever of this deſcription, in the autumnal months of the laſt and of the preſent year, is therefore the more remarkable, and the circumſtances to which this diminution of ſo great an evil can be attributed become intereſting objects of inquiry.

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* See Sydenham on the Epidemic Conſtitution of 1661, &c.—*Willan's Reports of Diſeaſes in London*, 18 1.

It is uſual, in the diſcuſſion of theſe topics, to hear a great deal aſſigned to ſome occult and undiſcoverable qualities of the atmoſphere, which are ſuppoſed to exiſt at certain intervals, and to produce all epidemics, whether contagious or not. Theſe qualities, however, are purely imaginary, and beyond the cognizance of our ſenſes? and it would, perhaps, be more rational to endeavour to trace a connexion between the exiſtence of the epidemic diſeaſes, and the *obvious* conditions of the atmoſphere, upon which much unqueſtionably depends. Perhaps it may be affirmed, without hazard of contradiction, that thoſe years in which the temperature never continues long in extreme heat or extreme cold, in which it is generally moderate throughout every ſeaſon, and in which viciſſitudes are frequent, but not great, are moſt favoured in this iſland with general good health, and moſt free from all epidemics. The few records of the ſeaſons, and the diſeaſes connected with them, which we poſſeſs, ſeem to afford reſults, on the whole, tolerably uniform. That a hot and droughty ſummer is productive of numerous and dangerous diſeaſes is well known to phyſicians; and that a continued froſt through the winter is alſo extremely detrimental to health (contrary to the popular opinion), and even excites the moſt malignant fevers, has been ſhown by Dr Heberden ‡ from indubitable evidence. And it may be obſerved that the winter preceding the great plague before mentioned was diſtinguiſhed by a froſt of remarkable intenſity. The coincidence of the ſtate of the ſeaſons in 1751 and 1752, as deſcribed by Dr Fothergill, with that of the years 1804 and 1805, is extremely great as to every variety of the condition of the atmoſphere: and a ſimilar abſence of epidemic diſeaſes, and a general prevalence of good health, is alſo particularly recorded. It was not ſo, however, in the hot and droughty ſummer which ſucceeded in 1754, when diſeaſes of the ſtomach and bowels prevailed to a great extent, and in the autumn a dangerous remittent fever was alſo very prevalent. A regiſter of the weather and diſeaſes, continued with unremitting attention for ſome years, would be the only means of elucidating this important ſubject.

November 30. T. B.

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* Sydenham, ibid.

† Obſerv. on the Weather and Diſeaſes, 1751, &c.

‡ Philoſ. Tranſ. for 1796.

On the Preſent State of Vaccine Inoculation on the Continent.

[Extract of a Letter from Dr HENRY REEVE, dated Vienna, 10th October 1805.]

" The vaccine inoculation is univerſally adopted throughout Germany, France, and Switzerland. With regard to the firſt and the laſt of theſe three countries, I can ſpeak from the reſult of my own obſervation, and from inquiries made in moſt of the principal towns. In the beginning of laſt year, the ſmall-pox was very prevalent at Lauſanne, and proved fatal to ſeveral perſons. Although it was ſpread in almoſt every quarter of the town, not one of thoſe who had been previouſly vaccinated was affected by it, notwithſtanding many of them lived in the ſame rooms, and even ſlept in the ſame beds, with thoſe labouring under ſmall-pox. A few inſtances of the inefficacy of vaccination were talked of, and exaggerated into ſome ſort of importance; but all theſe caſes, amounting only to four in number, on inquiry were moſt deciſively and ſatisfactorily proved to have been either caſes in which the cow-pock inoculation had produced no effect, or in which a ſpurious, irregular diſeaſe took place. Theſe are the only examples of ſuſpected failure that I have heard of on the continent, and, ſince that time, the public confidence in Switzerland has been reſtored. The medical men at Lauſanne have formed a committee for inoculating the poor *gratis*; and, moreover, they have offered a handſome pecuniary reward to any perſon who ſhall ſhow themſelves affected with ſmall-pox, either by contagion or by inoculation, after having been once inoculated with cow-pock matter, and having had this diſeaſe in the regular progreſſive way. A caſe of this ſort was conſidered as well worth the price; but the reward has never been claimed, and all the clamour has ceaſed. At Bern, Neuchatel, Baſle, &c. the cow-pock has ſuperſeded the ſmall-pox, and it is only in the accounts from England that I hear of the ravages of this terrible malady. Since I have been at this place, I have continued my inquiries. My friend Dr De Carro has obliged me with a written document on this ſubject; it is in itſelf completely ſatisfactory. If any additional teſtimony were neceſſary, I could add, that it correſponds in every reſpect with all that I have been able to learn, and it may be looked upon as perfectly authentic. I ſend you encloſed a copy of Dr De Carro's letter.

" DEAR SIR, *Vienna, October* 9. 1805.

" It is with the greateſt pleaſure that I comply with your wiſhes in giving you a ſhort account of the actual ſtate of vaccination in Germany, while, at the ſame time, I give my opinion upon the diſrepute into which it ſeems to fall in England, of which the public newſpapers, and the private account from Norwich, which you read to me yeſterday, afford a melancholy example. It would be both uſeleſs and difficult to enumerate all the various inſtitutions which have been formed in Germany for the progreſs and ſucceſs of vaccination. I know none of its ſeveral governments which have not encouraged, and, as far as poſſible, ordered its adoption. Every eccleſiaſtical court, and each individual clergyman, has taken ſome ſteps about it. Several crowned heads, among whom are the Emperor of Auſtria and the King of Pruſſia, have ſubmitted their own children to this beneficial operation: innumerable books, ſermons, catechiſms, popular dialogues, &c. &c. have been publiſhed; copperplates and wax figures, repreſenting the true vaccine puſtule, have been diſtributed, where they were ſuppoſed to be neceſſary; and, for theſe laſt three years, I do not know one ſingle line of any conſequence that has been written againſt the cow-pock. Some few works, publiſhed againſt it previouſly, are now entirely forgotten, and, though there are ſtill ſome practitioners careleſs in promoting vaccination, I know none publicly hoſtile to it, and Germany has neither *Goldſons* nor *Moſeleys*. From the unanimity, and from the excellent meaſures taken for inſtructing the under claſs of country ſurgeons, barbers, &c. we really do not now hear any more of blunders in inoculation, and no ſuch thing is to be found in our innumerable periodical and polemical works as *caſes* of *ſmall-pox* ſubſequent to cow-pock, nor even ſuſpicions of the inefficacy of the latter. In my own practice, which began the 10th May 1799, on my eldeſt ſon, and which has ſince been very extenſive, and in the innumerable reports which have been ſent to me from thoſe to whom I have ſent vaccine matter, I declare, upon my honour, that I have not met with any accident which could in the leaſt diminiſh my complete faith in the Jennerian method; and, indeed, you can appeal to the teſtimony of the whole city of Vienna, to which my conſtant attention, with regard to vaccination, is ſufficiently known. My care in minutely examining any of thoſe reports, which are almoſt inevitable on the appearance of eruptive diſeaſes in children previouſly vaccinated, has been as great as thoſe I have taken, and ſtill take, in the diffuſion of cow-pock matter.

"What I have ſaid of Germany I might repeat of the preſent ſtate of vaccination in India, where I have had the good fortune to introduce it by the way of Bagdad, Baſſora, Bombay, &c. after every attempt to forward the matter by ſea, by Dr Jenner himſelf, and the moſt celebrated vaccinators in England, had failed. Some of my letters on the oriental vaccination have been publiſhed; I have written an account of it in my *Hiſtoire de la Vaccination en Turquie, en Grece, et aux Indes*; the Eaſt India Company and the Governor of Bombay have publicly acknowledged their obligations to me by preſents. As the principal phyſicians and ſurgeons of Bagdad, Baſſora, Bombay, Madras, Goa, and Colomba, in the iſland of Ceylon, do me the favour to continue their communications by every poſt, I can affirm, upon their authority, by private and public documents, by letters from bramins themſelves, which I have ſhown you, that the progreſs of vaccination in the Britiſh ſettlements is truly aſtoniſhing. Dr Milne, now at Goa, has inſpired among the Portugueſe of that ſettlement ſuch confidence in the vaccine preſervative, that nothing can ſurpaſs the eagerneſs with which thoſe people make uſe of it. Dr Milne has deſcribed to me ſeveral of his excurſions, made in the environs of Goa, which can be compared to none but thoſe of Dr Sacco in Lombardy, who goes from one town or village to another, and the children are all aſſembled and called together *en maſſe*, to be vaccinated, by the ringing of the church-bell.

" How, then, to account for the caſes adverſe to the efficacy of cow-pock in England, when we ſee ſuch invariable ſucceſs in other countries *with the matter ſent from England?* Surely ſuch inſtances muſt be owing to errors now unpardonable in a country which gave birth to Dr Jenner, to that man who is as great by the importance of his diſcovery, as he is by the manner in which he publiſhed it. If Engliſh vaccinators follow his precepts as faithfully as we do on the continent, and as Britiſh and Indian phyſicians do in Aſia, none of thoſe fatal events will occur. In the year 1804, two children only died of the ſmall-pox at Vienna, and even they did not belong to the town: one caught the diſeaſe on the Danube in coming from Suabia, the other was brought with the diſeaſe from a diſtant village to the Foundling Hoſpital. This year we have been leſs fortunate here, ſix or ſeven children have already died of ſmall-pox. But that number is quite inſignificant, when compared with the yearly mortality before the introduction of the cow-pock. None of theſe children had been vaccinated *.

" If, my dear Sir, this letter can be of any uſe to re-eſtabliſh a belief in a remedy ſo precious to mankind, and ſo honourable to your country, you may diſpoſe of it in any manner you think moſt proper.

" Believe me, with the greateſt eſteem, yours very truly,

To Dr Reeve, Vienna. J. De Carro, M. D."

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* Vaccination was introduced into Vienna in 1801. Its effects in decreaſing the deaths by ſmall-pox are evident from comparing the deaths ſince that period with the medium of the preceding ten years, as ſtated in Dr Marc's Medical Annals.

	Total Deaths.	*Small-pox.*	
1791—1800	14,600	835	or one in 17 ½.
1801	15,181	164	93.
1802	14,522	61	238.
1803	14,383	27	532.
1804	14,035	2	7017.

TO CORRESPONDENTS.

We have received communications from Dr Macleay, Oban; Mr Collins, Swanſea; Dr Anderſon, Madras; Mr Henry, jun. Mancheſter; Dr Torrence, Thurſo; Dr Gillum, Bath; Mr Paton; and Dr De Carro, Vienna.

The following publications have alſo been ſent for analyſis: Mr Chamberlayne on Cowhage; Mr Ware on Cataract; Mr Cooper on Cataract; Berthollet on Chemical Affinity; Theſaurus Medicaminum, 3d edit.; Mr Luxmore's Manual of Anatomy; the London Diſſector; Boyer on the Bones; Dr Jones on Hæmorrhagy; Mr Parkinſon on Gout; Prof. Reil on the Education of Empirical Practitioners; Fabbroni on the Analyſis of Cinchona; Mr Young on Cancer; Dr W. Hunter on the Diſeaſes of Laſcars; and Arguments in favour of a gradual Inoculation of Cow-pock, by R. Gillum, M. D.

⁂ No. VI. *will be publiſhed on Tueſday the 1ſt of April,* 1806.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Caſe of Abſceſs in the Abdominal Muſcles, which terminated fatally. By CALEB CROWTHER, M. D. Wakefield.

ALICE HURTHWAITE, aged 15, was admitted into the Diſpenſary on the 11th of June 1805, labouring under violent pain in the right ſide of the abdomen, about the middle of the external oblique muſcle, accompanied with great thirſt, increaſed heat, frequent ſhiverings, a quick pulſe, nauſea, and vomiting. The account which ſhe gave of herſelf was, that ſhe was ſeized ſuddenly with the pain on the 1ſt of June, and with difficulty walked a few hundred yards from the place where ſhe was in ſervice to her mother's cottage. Of her own accord ſhe took ſome opening medicine that produced a good deal of purging, which ſtill continues. She feels moſt eaſy when the abdominal muſcles are relaxed, the knees being brought towards the chin. She does not recollect having received any injury on the abdomen, and has previouſly enjoyed good health. She is tall, and rather thin. I ordered the abdomen to be fomented with flannels wrung out of hot water, and eight leeches to be applied to the pained part. She was directed to take 10 drops of Tinct. Opii, when the pain became urgent, and one ſcruple of P. Cretæ comp. cum Opio, in caſe the purging ſhould continue to be violent.

12*th.* She experienced relief from the fomentation and leeches, and continued free from pain for about an hour after their application. The purging ceaſed without the uſe of the aſtringent, and the Tinct. Opii was rejected by vomiting. The other ſymptoms as before. The fomentation and leeches to be repeated. I was at this period deſirous of uſing the warm bath, but the cottage did not afford convenience for heating the water.

13*th.* She found but little relief from the application of the leeches and fomentation. She felt pain on preſſure upon the part affected, but neither tumour nor hardneſs were perceptible. The urine was very high-coloured, the bowels coſtive, the other ſymptoms as before. I ordered a bliſter to be applied to the part affected, a common enema to be adminiſtered, and the ſaline mixture to be taken in a ſtate of effervescence.

15*th.* The pain in the abdomen ceaſed as ſoon as the bliſter roſe, and ſhe has ſince felt in every reſpect better. The ſkin is cool, and the pulſe about 90 in a minute, and of moderate ſtrength; urine turbid. Ordered to continue the ſaline mixture.

18*th.* She began on the 15th, in the evening, to feel much pain in the region of the liver, betwixt the ſhoulders, and in the calves of the legs, and to-day theſe pains continue to be very urgent. The pulſe is very quick, the ſkin is hot; ſhe has frequent rigor, alternating with fluſhings in the face. Singultus ſometimes occurs; thirſt is urgent; the ſtomach retains nothing but the effervescing mixture; the bowels are rather looſe; the countenance is very languid. I ordered her to take ſix drops of Tinct. Opii with each doſe of the mixture, and to rub half an ounce of it into the thighs.

20*th.* She appears to-day in every reſpect worſe; ſhe gets ſome diſturbed ſleep after the frictions and opiate mixture, but does not at all appear refreſhed by it. The nauſea continues; the tongue and mouth are covered with aphthæ. I ordered her to continue her medicines, and to diſſolve in her mouth frequently a ſmall quantity of an electuary, conſiſting of borax and honey.

21*ſt.* She continues to grow weaker; the pains in the region of the liver and between the ſhoulders have been very urgent; the tongue is dry and red, but the white aphthous cruſt lining the mouth has diſappeared. She takes nothing but balm tea, and a little milk or weak mutton broth occaſionally. I ordered a bliſter to be applied between the ſhoulders, and a pill, with half a grain of opium, to be taken with a doſe of the effervescing mixture every three hours. The opiate frictions to be continued, the electuary to be omitted.

23*d.* The right leg and thigh have become œdematous, and ſhe complains of pain in the part of the abdomen firſt affected, but nothing unuſual is to be ſeen or felt there; the urine is plentiful, and not ſo turbid. She ſleeps the greateſt part of her time; the ſickneſs continues. I ordered her to take her medicines only every four or five hours.

26*th*. The œdema has increaſed, and the ſkin continues hot and dry; in other reſpects much the ſame as before. To omit the opiate pills, and, inſtead thereof, to take two of the following with each doſe of the mixture every four hours.

℞ P. Ipecac. comp. ʒ iv.
Calomel pp. gr. iv.
Conf. Cynoſbt. q. ſ. ut ft. pil. N°. xxxij.

30*th*. The left leg and thigh have become œdematous. She voids about a quart of clear ſtraw-coloured urine in 24 hours. The bowels are very looſe, owing probably to the calomel. She has perſpired a good deal; the ſkin is cooler, but the pulſe is very rapid and weak; thirſt conſiderable; no appetite; frequent nauſea, as before. Ordered to omit the pills, and to take two of the following with each doſe of the mixture.

℞ Pulv. Ipecac. Comp.
— Opiat. ana ʒ ij.
Conf. Cynoſbt. q. ſ. ut. ft. pil. N°. xxxij.

5*th July*. The pains about the region of the liver and between the ſhoulders ſtill continue, and ſhe now again experiences much pain in the part of the abdomen firſt affected. The œdema continues; the urine is ſcanty; ſhe has for the three laſt nights had a good deal of difficulty of breathing, and ſhe has her head much raiſed by pillows. She has hectic paroxyſms, ſometimes once, ſometimes twice, or even three times, in 24 hours. The pulſe is very quick and irregular. She gets ſome diſturbed ſleep after taking each doſe of her medicine, but ſhe ſtill labours under diarrhœa. Ordered to continue her medicines, and to take one ounce of Miſt. Cretac. after every looſe ſtool. The ſtomach and bowels have all along been too much diſordered to bear the operation of ſquill or digitalis.

The powers of life continuing to decline very faſt, and the effuſion of water to increaſe, ſo as to leave not the moſt diſtant proſpect of recovery, I ſaw her again only once before the time of her deceaſe, which took place on the 19th.

APPEARANCES ON DISSECTION.

The body was opened on the 20th. On cutting tranſverſely through the oblique muſcles, on the right ſide of the abdomen, an abſceſs of an irregular oval form, about three inches in diameter, was diſcovered between the external and internal oblique muſcles, ſituated, as nearly as could be aſcertained from the putridity which had already taken place, and the confuſion of parts, in the centre, between the linea ſemilunaris, the ſpine of the ilium, and the termination of the loweſt falſe rib. The diſeaſe extended in the lower part of the muſcle to their inſertion in the groin. In the internal oblique muſcles were diſcovered two holes, through which the matter had paſſed on to the peritoneum. It had not penetrated into the inteſtines, which were found in a natural ſtate, but had paſſed over the peritoneum to the convex ſurface of the liver, where it eroded the peritoneum, and formed in the liver two holes with jagged edges. A conſiderable ſpace of the convex ſurface of the liver was ſuperficially ulcerated. The interior parts of the liver were perfectly ſound. A quantity of purulent matter was found lying on the little omentum, but, as there did not appear to be any diſeaſe in the circumjacent parts, it is probable that this effuſion had not taken place long before death. On opening the thorax, a conſiderable quantity of water was found in each cavity of the cheſt, as well as in the pericardium. The cellular membrane in the lower extremities was loaded with water.

A few days after the death of this patient, her mother called upon me to ſay, that about a fortnight before our patient was taken ill, ſhe fell from a ladder into a cellar, and hurt her body, ſo as to experience much pain for a day or two; but both mother and daughter had entirely forgotten this circumſtance when interrogated by me on my firſt attendance; this is one proof, beſide many others, of the great difficulty we often experience in obtaining from the poor a correct hiſtory of the prediſpoſing cauſes of diſeaſe. The diſſection illuſtrates well the progreſs of the diſeaſe. On the application of the bliſter to the abdomen, the pain ceaſed, not in conſequence of any good effect having been produced by the bliſter; but from the inflammatory action of the part having ceaſed, after the formation of the purulent matter. From the time of my firſt attendance until a few days after this period, my patient paſſed the greateſt part of her time in an armed chair, the hind feet of which were reclined ſo as to form an angle with the floor of about 45°. Her feet reſted upon the front rail of the chair, and her head and ſhoulders were ſupported by pillows. In this poſition her knees approached her chin, and, owing to the relaxation of the abdominal muſcles, ſhe felt the moſt eaſy. It was owing to this poſition that the purulent matter, after penetrating through the abdominal muſcles, deſcended over the peritoneum to the convex ſurface of the liver, and there occaſioned a train of ſymptoms not readily to be accounted for without the aſſiſtance of the diſſection. The muſcles were much diſeaſed at their termination in the groin, and the œdema of the right leg commenced in all probability from the deſtruction of the lymphatic veſſels there, in conſequence of ſome of the purulent matter inſinuating itſelf between the muſcles, and paſſing into the groin. The preſence of purulent matter in the ſyſtem, and the gradual ſinking of the vital powers, afford a ready explanation of the ſymptoms occurring in the laſt ſtage of the diſeaſe.

Had this patient applied for medical aid immediately after the accident, ſhe might, I have no doubt, have been very readily cured.

Caſe of Syphilitic Ulceration of the Skin, accompanied with Caries of the Tibia.

On the 4th December 1803, I was ſent for to viſit A. B. æt. 19, whom I found labouring under hectic fever, accompanied with very frequent cough and copious expectoration, the urine being high-coloured, and depoſiting a copious lateritious ſediment; the pulſe 120 in a minute. He had great thirſt, was very reſtleſs, and had profuſe nocturnal perſpirations. The countenance had a melancholy aſpect; the appetite was very bad. On the tibia of the left leg there was an ulcer about one inch and a half long, which had deſtroyed the perioſteum, and rendered the bone carious. The probe paſſed readily into the numerous cavities of the denudated bone. From the previous hiſtory of the diſeaſe, it was evident that this ulcer was of ſyphilitic origin. For ſix or eight months prior to the ulceration, a node had made its appearance on the tibia, attended with ſevere nocturnal pains, which gradually increaſed in ſize until the integuments burſt. The ulcer had been dreſſed daily with mild digeſtive by the ſurgeon who attended him. He was taking two of the following pills every night at bed-time,

℞ Hydrarg. Calcinat. gr. iij.
P. Opii puri gr. vj.
Confect. Aromat. g. ſ. at fr. pil. N° xij.

and Decoct. C. Cinchon. ℥j. thrice a-day, with a few drops Tinct. Opii and nitric acid.

I ordered the pills to be continued, a pint of Decoct. Guaiaci, with 40 drops of nitric acid, to be taken, at divided intervals, daily. The ulcer to be dreſſed with lint ſocked in Tinct. Myrrhæ, and a warm linſeed poultice. The dreſſings to be changed thrice a-day.

Dec. 8th. I found my patient this day aſtoniſhingly better in every reſpect. The pulſe was natural. The hectic fever and its accompanying ſymptoms had vaniſhed. The cough and expectoration had nearly ceaſed. The ulcer put on a healing appearance, and the appetite returned.

He was ordered to continue his medicines, and, in the courſe of about a week, was ſufficiently recovered to be able to ſuperintend his buſineſs. He continued gradually to recover until the 12th January 1804, when the ulcer healed, and he was in perfect health. The leg has ſince continued ſound; and he is, at this day, ſubject to no complaint, except occaſionally to nocturnal pains in the bones.

This was the moſt ſpeedy cure of a chronic diſeaſe which I ever recollect to have witneſſed; indeed, unleſs I had myſelf attended the patient, and ſeen the rapid recovery, I ſhould have had much difficulty in attaching credit to it. It appears that the lint and the poultice abſorbed the purulent matter from the ulcer as it was ſecreted, in conſequence of which the hectic fever ceaſed. From the carious ſtate of the tibia I fully expected that an exfoliation would have taken place.

II.

Remarks on the Internal Uſe of Tincture of Cantharides in Gleet and Leucorrhœa; illuſtrated by Caſes. By JOHN ROBERTON, Surgeon, Edinburgh, and Member of the Royal Medical Society of Edinburgh.

MUCH diſpute, controverſy, and error, would be prevented in medicine, as well as in the other departments of ſcience, if ideas were expreſſed with more perſpicuity of language, and the ſubjects of inquiry deſcribed with more preciſion than is uſually done. The truth of this remark is well exemplified in what authors have ſaid concerning the medical properties of cantharides, which has been with equal ardour condemned as the moſt pernicious, or praiſed as the moſt ſalutary of ſubſtances; and perhaps with equal judgment alſo, ſince the one approved, without underſtanding in what circumſtances, or why it was uſeful, and the other rejected, without inquiring why it had been unſucceſsful. This, like every other moſt powerful agent, when injudiciouſly or raſhly employed, muſt have very pernicious effects; but, when rationally and deliberately uſed, the effects may be as conſpicuouſly ſalutary.

In the conſideration of every inflammatory diſeaſe, it is of the utmoſt importance to diſtinguiſh accurately between inflammation, properly ſo called, and its conſequences; wherefore we venture thus to diſtinguiſh gonorrhœa and gleet, or blenorrhagia.

GONORRHOEA, an active inflammation affecting the yard, with a puriform diſcharge from the urethra.

GLEET, an atony of the yard, the effect of active inflammation, or other debilitating cauſes, accompanied with a glairy diſcharge from the urethra *.

Theſe two conditions, in principle and in practice, are completely analogous to the ſtates of active and paſſive inflammation as diſtinguiſhed by Cullen, and the other moſt correct ſyſtematic writers; nor is there any rule of medical practice more firmly eſtabliſhed than that, in the firſt, ſtrong ſtimulants are as hurtful, as they are beneficial in the ſecond.

Accordingly, we need not be ſurpriſed that one perſon, uſing the very active ſubſtance of cantharides in the gonorrhœa, as above defined, ſhould meet with chagrin and diſappointment; while another, who uſed it in gleet, which was alſo named gonorrhœa, ſhould, as we do, from undoubted experience of its ſuperior efficacy, recommend it to the notice of practitioners as a moſt valuable addition to the reſources of the healing art.

We might have ſuſpected, from the relation of the contradictory effects which this ſubſtance is deſcribed to have produced, what was the ſource of the error; but if this ſuſpicion is corroborated by the facts contained in the writings of thoſe who have preſcribed it; if gonorrhœa has been confounded, both in name and in practice, with gleet; if, where cantharides have been unſucceſsful in removing diſcharges from the urethra, theſe have been gonorrhœas, but, where ſucceſsful, gleets; in fine, if poſitive experiment prove that, by inducing gonorrhœa, it cures gleet, will not this point be eſtabliſhed, that gonorrhœa, being confounded with gleet, is the cauſe of the oppoſite ſentiments of writers with regard to the effects of cantharides in certain diſcharges from the urethra?

In the ſame manner we may, I preſume, reconcile the difference of opinion with regard to the uſe of the corroſive muriate of mercury in gonorrhœas.

4 That

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* It ſeemed unneceſſary to expreſs theſe definitions in ſuch a manner as to ſuit both ſexes, ſince the mind can eaſily make allowance for the difference of ſtructure, and perceive that the facts ſignified are equally applicable to both.

That the word gonorrhœa was employed to ſignify the diſcharge from the urethra in both the conditions above pointed out, the ſlighteſt attention to authors will amply ſatisfy any one; indeed the word etymologically denotes a flow of ſemen, and has been applied indiſcriminately to all diſcharges from the urethra; it is only in the advancement of ſcience that the neceſſity of words preciſely defined becomes urgent.

Dr Greenfield relates many caſes of gonorrhœa, which he and others cured by means of cantharides; but if we examine the hiſtories of the affection which they treated, we ſhall be convinced that they are thoſe of gleet; and the phraſes, violent gonorrhœa, virulent, painful, &c. which other writers employ to deſignate the affections in which the cantharides were unſucceſsful or hurtful, ſhow that thoſe were diſcharges accompanied with active inflammation, or real gonorrhœas. Laſtly, I have not only the teſtimony of authors, but have found by indubitable experiment, that cantharides induce active inflammation, with puriform diſcharge, before gleet is remedied: How, then, could they but fail in their attempts to remove active inflammation, uſing a moſt inflammatory ſubſtance?

On examination of the facts, we firmly believe that thoſe pernicious effects which have ſucceeded the uſe of cantharides, and which have excited ſuch horror and averſion to its exhibition in diſeaſe, have, as in the inſtance of gleet and gonorrhœa, principally originated in the want of diſcrimination between inflammatory action and its conſequences.

Previouſly to my employing cantharides in gleet, I had not conſulted authors on the ſubject; nor am I aſhamed to confeſs it, ſince the lifetime of any individual would not be ſufficient ſimply to read over, far leſs to examine, the merits and doctrines of one-twentieth part of the books written on the powers of particular medicines: beſides, when we conſider how uſeleſs the moſt of them are, a man has not much reaſon to regret that he is not endowed with dull perſeverance enough to pore over them. Having ſince, however, examined the works of authors on this ſubject, I am happy to find that the experience of ſome of the moſt eminent medical men has found cantharides as efficacious a remedy for gleet as I have done; among theſe I may reckon Bartholine, Hoffman, Liſter, &c.

When I firſt employed cantharides in gleet, I only knew that the ſubſtance was a powerful ſtimulant taken internally, and produced powerful effects on the urinary organs; and as all pain indicates a certain degree of inflammation, I thought that, in inveterate gleets, where there is both general debility and exhauſtion, with torpor and atony in the parts of generation, this ſubſtance might have conſiderable influence in reſtoring both the general and local activity; and the experiment, when made, exceeded in ſucceſs my utmoſt hopes.

In order to demonſtrate the truth of this aſſertion, I ſhall relate one caſe ſelected out of many; averring that, when exhibited with due caution, the cantharides effect the cure without vomiting, ſtrangury, or any of thoſe alarming ſymptoms which we have been taught to dread as the inevitable conſequences of their adminiſtration.

S———d, aged 55 years, a ſmall meagre man, on the 20th April 1804, mentioned to me that he laboured under an uncommonly ſevere gleet, but at the ſame time ſaying that he had no hope of cure, as the moſt eminent practitioners of England and Scotland had already preſcribed for him in vain; but, as the effects of it were now very ſevere, he requeſted that I would deviſe ſome method of relief, as, to uſe his own phraſe, life was become a burthen to him. I inquired minutely into his caſe, and found that he had been affected with a diſcharge of this nature from the urethra for about 20 years, which he attributed to the effects of a bad cuſtom originally commenced at ſchool, and ſince aggravated by repeated claps.

Such was his ſituation, that, beſides a continual diſcharge from the yard, emiſſion ſucceeded the moſt trifling erection, and ſtraining at ſtool had the ſame effect, which was followed by all that languor and depreſſion of ſpirits which gave origin to the celebrated aphoriſm, "Poſt coitum omne animal triſte."

Though married, connubial enjoyment was beyond his faculties; but this was not his only misfortune; headachs, loſs of appetite, lumbago, incontinence of urine, in fine, general emaciation and debility, threatened the ſpeedy termination of his life.

On inquiry, I found that all the moſt common means had been employed to remove his complaints; accordingly, to make him undergo a repetition of the ſame was neither conſonant to my own feelings, nor to the ſtate of my patient. I therefore preſcribed as follows:—

℞ Tinct. Cantharid. ʒiſs.
Sp. Lavend. Comp. ʒj.
Aq. f.——— ℥vij miſce.
Cujus cap. coch. magn. mane et veſp.

This having no effect, the doſe was increaſed on the 23d to ʒij.; this likewiſe had no effect, and, on the 26th, was augmented

The patient ſays the fluid was not in uniform quantity, but that an unuſually great diſcharge was always preceded and announced by an excruciating pain in the region of the kidnies, on which occaſion ſhe always had the diſtinct ſenſation of ſomething flowing, as it were, downwards from the loins, and the cloths applied to the parts were found wet with the diſcharge. Is there not reaſon to conjecture that the mucous membrane of the urethra is equally affected with that of the vagina?

As, in other caſes, I had been accuſtomed to uſe the tincture of cantharides with great ſucceſs, I preſcribed

℞ T. Cantharid. ʒiiſs.
Aq. font. ℥vj. m.

One table-ſpoonful to be taken thrice a-day.

12*th October*. Cantharides mixture repeated, with ʒiv. and aq. font. ℥vj. and again repeated, in the ſame quantity, on the 16th.

17*th*. She felt ſlight pain in the uterine region, extending down the vagina, particularly on making any exertion. The diſcharge was now ſomewhat thicker and whitiſh.

19*th*. Cantharides mixture repeated; in the evening the pain became very troubleſome, even when ſitting, and the diſcharge was much thicker and whiter. I now preſcribed, as an injection,

℞ Sulph. Cupri. ʒſs.
Aq. font. ℥vj. m.

To be thrown into the vagina thrice a-day.

20*th*. Diſcharge and pain almoſt gone; when I deſired her to take two tea-ſpoonfuls of the cantharides mixture every three hours till the pain ſhould return; but, before ſhe had taken a ſufficient quantity to produce this effect, the diſcharge reſumed almoſt its former violence.

21*ſt*. Diſcharge conſiderably diminiſhed, attended with ſlight pain.

22*d*. No pain, although ſhe has taken, within the laſt 24 hours, ʒiv. of Tinct. Cantharid.: The diſcharge now leſs by more than two-thirds than it was previouſly to the exhibition of the cantharides. I now ordered the injection to be omitted, and the following increaſed doſe of tinct. cantharid. to be uſed:

℞ T. Cantharid. ℥j.
Aq. font. ℥vj. m.

To be uſed as the former mixture.

23*d*. After taking one doſe of the laſt mixture, ſhe was, for the firſt time, ſenſible of pain in voiding urine. This was the period for the return of the menſes, which accordingly appeared, but ſhe was at the ſame time ſeized with a fever, and ſpecies of cynanche tonſillaris, that had raged epidemically in the town for ſome weeks. Tinct. cantharid. and injection now intermitted, as the fever, &c. continued to the 1ſt November.

2d November. Fever gone; throat getting better, after one of the tumours had ſuppurated and burſt. Menſtruation ſtill continuing, and of an alarming quantity.

Preſcribed this day

℞ Acidi Nitrici, ʒij.
Aq. font. ℔ij. m.

One wine-glaſsful thrice a-day, till the flooding ſtops.

7th. Flooding ceaſed; the diſcharge of the fluor albus conſiderably abated.

9th. Diſcharge much aggravated. General ſtimulants were now preſcribed, becauſe the ſyſtem was much reduced by the fever, &c.

12th. Diſcharge much diminiſhed.

13th. Diſcharge entirely gone; the general health much improved.

17th. Diſcharge returned in a ſlight degree, and of the ſame appearance and conſiſtence as before the uſe of the tinct. cantharidis.

21ſt. After earneſt perſuaſion on my part, ſhe was prevailed on to recommence the tinct. cantharid. in ſmall doſes.

22d. Great ſickneſs during the night, and inflammatory ſymptoms, with a puriform colour in the diſcharge, came on before morning.

℞ Camphor,
Gum. Mimoſæ Niloticæ ana ſcrup.
Alcohol q. ſ. ut fiat maſſa pil. divid. in xv partes equales.

One of theſe pills was directed to be taken an hour after each doſe of the tinct. cantharidis mixture, which was to be taken thrice a-day.

23d. Cantharides continued. Very great pain this day, but as it has never become ſo ſevere as on the 21ſt, ſhe has uſed none of the camphor pills.

24th. Diſcharge entirely gone. Cantharides continued in ſmaller doſes, but ſufficient to maintain what Mr John Hunter would probably call the ſuppurative ſtage.

25th. Pain of head; no return of the diſcharge.

℞ Supertart. Potaſſæ, ℥j.
Solve in Juſc. bov. ℔j.

To be taken preſently. Cantharides continued.

26th. ℞ Tinct. Cantharid. ʒv.
Aq. font. ℥vj.

On the evening of this day, after having fatigued herſelf by walking, and having alſo neglected to take tinct. cantharid. ſince morning, the pain in the uterine region abated, and the diſcharge returned in a ſlight degree.

27th. Cantharides to be taken during this day till the pain return. Pain and conſiderable difficulty in making water came on this night at bed-time, with nearly a complete ceſſation of the diſcharge.

28th. Cantharides continued, and one of the camphor pills to be taken. Diſcharge ſlight.

29th. Cantharides continued. Diſcharge not entirely gone, but nearly ſo.

30th. Diſcharge entirely gone. Cantharides continued, and quantity laſt mentioned repeated. Conſiderable uneaſineſs, or rather pain, in making water. Partial ſickneſs this day and yeſterday, with headach. Supertart. Potaſſ. as above, which relieved theſe ſymptoms.

1ſt December. Very early this morning there was an almoſt imperceptible diſcharge. Cantharides continued, and injection.

2d. Uneaſineſs extending along the vagina and uterine region ſtill kept up by the uſe of tinct. cantharid. Injected two or three times ſince yeſterday, but no return of the diſcharge.

3d. The pain in the region of the kidnies, which is wont invariably to indicate the returning diſcharge, was felt this morning, but not followed by the diſcharge, or even the ſmalleſt appearance of matter per vaginam ; in other reſpects as yeſterday. The menſtruation not having returned at the regular period, there is reaſon to ſuſpect the intervention of pregnancy ; I have therefore ordered the doſe of the cantharides to be diminiſhed, but the injection into the vagina to be continued.

4th. Had a violent attack of hyſteria this morning, occaſioned by mental agitation. Such an attack never happened before during the complaint, without its being ſucceeded by an uncommonly copious diſcharge, of which there is no appearance. Medicines to be continued as laſt preſcribed.

5th. No diſcharge ; uneaſineſs of the parts gradually abating.

6th. A repetition of the hyſteric paroxyſm from a ſimilar cauſe.

7th. Early this morning the diſcharge reappeared, of a puriform nature, and continued to augment all this day. Pain from the cantharides almoſt gone. Cantharides to be taken in increaſed doſes, and the injection ſtill to be uſed.

8th. Diſcharge gone, pain of the parts returned. Remedies as laſt directed, but in diminiſhed doſes.

10th. No diſcharge, pain gone. General health much better than ſhe thinks it ever was ſince ſhe laboured under this affection; is not oppreſſed with that deſpondency from which ſhe felt very diſagreeable in her former pregnancies.

14th. No cantharides taken ſince the 10th. Pain and diſcharge gone. Complains of ſickneſs in the mornings, loſs of appetite. Formerly, when pregnant, ſhe had none of the uſually concomitant ſymptoms of that ſtate, except the ceſſation of the menſes, and the increaſe of ſize; at which time, too, the diſcharge per vaginam was ſignally augmented.

20th. Previouſly to this date ſhe had uſed the injection very irregularly. During the afternoon of yeſterday ſhe had been walking, ſailing, and dancing a good deal. Suddenly awoke this morning, with violent palpitation of heart and agitating mind, from a dream. Slight return of the diſcharge. Injection to be uſed more regularly. Cantharides to be repeated in ſmall doſes.

22d. Vomits the cantharides immediately on taking it, and diſguſted with it. Her common food is loathſome to her, and excites ſevere ſickneſs and vomiting, but no pain in the ſtomach or cheſt. The ſame occurs on riſing in the morning. Some diſcharge, though ſcarcely perceptible. Cantharides diſcontinued for fear of injuring the fœtus. Injection uſed once a-day.

1ſt January 1806. Diſcharge has continued as on the 22d ult. She danced and fatigued herſelf a good deal this evening, but this was ſucceeded by no augmentation of the diſcharge, as on the former occaſion, when ſhe had been ſailing and dancing. Could the expoſure to the cold ſea-air produce any difference in the reſult? For on the 1ſt January ſhe fatigued herſelf much more than on the former occaſion.

5th. Says the diſcharge is ſtill perceptible. I aſked her what it was, compared to what it had been? She replied emphatically, "It is not the ten thouſandth part of what it formerly was; and I feel myſelf as well in my general health as ever I was in my life, except that my bones and joints are ſtill ſore from the exertion of the firſt day of this year."

I may mention that cantharides ſeems formerly to have been uſed ſucceſsfully in leucorrhœa, though the nature of the affection which this medicine removed does not ſeem to have been underſtood by thoſe who employed it. Dr Greenfield, for example, had adopted a notion that almoſt all ſuch diſcharges as thoſe of leucorrhœa and gleet depended on ulceration of the bladder, and that cantharides were an infallible remedy for ſuch ulcers; juſt as, in our own times, ſome promulgate that almoſt all affections of the organs of generation, nay, even of the head, ſtomach, bowels, cuticular eruptions, ſtone in the bladder, &c. depend on ſtrictures of the urethra. The following caſe, related by Greenfield, as communicated by Charles Bernard, ſurgeon to Queen Anne, was evidently one of leucorrhœa miſtaken for an ulceration of the bladder.

" A certain lady of quality, who, for a long time, had been affected with an ulcer in her bladder, and had applied herſelf to very many of the College of Phyſicians in London, but without any manner of relief, mightily implored from time to time my aſſiſtance, which I as often denied, becauſe the diſtemper was both difficult of cure and chronic withal, and the patient daily voided an incredible quantity of mere fetid pus. At laſt I was prevailed upon to undertake or rather attempt a cure, and the more, that I might have the opportunity of trying the method ſo mightily recommended by Dr Greenfield, viz. the internal uſe of cantharides in curing ulcers in the bladder. I began the trial with two grains of cantharides, to be taken twice a-day, from 26th March to the 2d April; but, by the uſe of theſe, a dyſuria enſued, wherefore we omitted them till 24th April, and preſcribed balſamics in their room; but what was very ſpecially obſervable was, that the quantity of purulent matter which ſhe uſed daily to evacuate was wonderfully diminiſhed. From the 24th till 26th April we repeated two grains of cantharides twice a-day, as before. From 26th April to the 1ſt May we advanced to three grains of cantharides, intermingling balſamics by intervals; meanwhile a ſtrangury continued to be very troubleſome, but the purulent matter leſſened daily, and at length wholly diſappeared."

Having collected a much greater number of facts and obſervations than could be admitted into a periodical publication, or than my other affairs would allow me immediately to prepare for the public ſcrutiny, I intend ſtill farther to proſecute the ſubject, and, during the intervals of profeſſional employment, to write a treatiſe on the different modes of treatment, particularly the modern, which have been adviſed in ſuch affections; and I earneſtly requeſt the favour of any medical gentleman, who ſhall exhibit the cantharides internally, to communicate to me the reſult of his obſervations with regard to the powers of this remedy. The utility of ſuch liberal intercourſe amongſt the practitioners of our art muſt be obvious to every one.

19. St James's Square,
January 1806.

III.

III.

Remarks on the Dracunculus, or Guinea Worm, as it appears in the Peninſula of India. By NINIAN BRUCE, A. M. Surgeon 1ſt Battalion 88th Regiment, or Connaught Rangers.

THIS diſeaſe is known by different appellations. Linnæus calls it *Tilaria*, and *Gordius Medinenſis*. Velſchius and Sir Hans Sloane name it, after the Arabians, *Vena Medinenſis*; ſo called from its doubtful appearance, and from its frequent prevalence at Medina. The French call it *Dracunculus* and *Dragonneaux*. It is known in India by an appellation nearly the ſame throughout the country: At Bombay it is called *Nároo*; in Bengal, *Neéria*; and in Hindooſtan, *Néruah*.

It prevails not only in Africa and in India, but in South America, the Weſt Indies, and ſome of the more ſouthern parts of Europe.

This diſeaſe was not unknown to the ancients [*]. Ætius gives a deſcription of it, which is in a great meaſure applicable to it as it appears in India [†]. Some late writers confound it with the *Bovina Affectio*. Children have been ſaid to be more ſubject to it than adults. It appears, however, that all ages and both ſexes are liable to be affected, but adults chiefly.

It attacks moſt parts of the body, but is generally confined to the lower extremities, particularly to the feet and ancles. The diſeaſe is more painful and dangerous when ſeated in parts thinly covered with fleſh, ſuch as near the joints, tendons, and ligaments, and leſs ſo in muſcular parts. It is always difficult to extract the worm from the ancles, tarſus, and metatarſus, and ſometimes impoſſible from the toes. The conſequences frequently are, tedious ſuppurations, contractions of the tendons, diſeaſed joints, and gangrene. When pulled, the worm often excites a pain which it is not eaſy to deſcribe, and which, in theſe parts, is extremely exquiſite. It ſeems to attach itſelf to the nerves, ligaments, and tendons, and, when pulled even with the ſlighteſt force, excites excruciating pain. The track of the animal appears to be for the moſt part confined to the cellular membrane, and probably ſeldom extends deeper, or penetrates into the interſtices of the muſcles.

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[*] Galen, Paulus Ægineta, Albucaſis, Actuarius, and ſome others, have taken notice of this complaint; Avicenna deſcribes it fully, and Velſchius has written a large book on this, and on capillary worms.

[†] Ætii Tetrabib, IV. Serm. 2. Pag. 815, et ſeq. edit. per Cornar. 1542.

The diſeaſe generally appears without any very evident previous ſymptom. Its preſence is generally announced by a degree of itchineſs, redneſs, and heat, in the ſkin of the part, ſucceeded often by a veſicle, and the part is more or leſs inflamed and ſwelled. Under the veſicle, which contains a white, thick mucus, the head of the worm may be often diſcovered. It not unfrequently happens, however, that the worm cannot be found for ſeveral days after ulceration. Sometimes a ſmall ulcer is the firſt thing obſerved; at other times, tumour of the whole limb, with much inflammation. The worm ſometimes, at firſt, appears like a hair, ſeveral inches long, and becomes thicker as it is extracted; but it generally has a ſharp point, and is all of the ſame thickneſs. It may often be felt and traced with the fingers, like the ſtring of a violin, under the ſkin, where it excites no very ſenſible uneaſineſs, until the ſkin becomes affected from the animal perforating it.

When removed from the body, the worm exhibits no appearance of life, although extracted at one operation; but it is ſaid that, on being ſubjected to different ſtimuli, it has afforded ſigns of vitality. The length of the worm i[illegible] I believe, ſeldom leſs than eighteen inches, or more than ſix feet. Inſtances, however, are mentioned wherein they have exceeded this length *. They are elaſtic, white, and tranſparent, and contain a milky juice. Their diameter is generally about that of a violin tenor ſtring; ſometimes they are ſcarcely half the ſize, and at other times much thicker.

When the diſeaſe appears in parts that are tender, when there is extenſive ulceration, or when the conſtitution is irritable, there is always more or leſs fever, loſs of appetite and ſtrength; and there is an exacerbation of the fever in the evening, which is ſometimes increaſed and kept up by the worm having been drawn too tight. Sympathetic tumours of the inguinal glands alſo ſometimes occur, when the complaint is ſeated in the lower extremities.

Various cauſes are aſſigned for the generation of this inſect. Some of the ancients, as well as the moderns, attribute its production to the drinking of putrid ſtagnant water, containing the ova of the worm. Horſtius, who ſeems to miſtake the diſeaſe, attributes it, as well as others, to ſuppreſſed perſpiration, of an acrid quality, confined in the excretories of the ſkin, which putrifies, and gives riſe to the germ and ova of the inſect.

Another

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* In the 6th vol. of the Edin. Med. Eſſays, a caſe is detailed of a boy who had arrived at Bermudas from Guinea, from whom, at different times, above thirty yards of worm had been extracted; an entire worm, from the leg, meaſured three yards and a half.

Another opinion regarding the generation of this worm is, that it is produced from ova depoſited in the ſkin by inſects of a certain kind, which are ſuppoſed to reſide in or near water. The ova thus depoſited may be ſuppoſed gradually to acquire, from the heat and nouriſhment of the human juices, life and ſubſequent growth.

That the laſt mentioned opinion is by far the moſt probable and ſatisfactory in explaining the phenomena of the worm, I ſhall endeavour to ſhow from obſervations founded on facts.

1. The diſeaſe moſt frequently attacks parts which are liable to immerſion in water, ſuch as the feet and legs; and at the firſt appearance of the complaint, in any particular ſtation, the lower extremities are, in the firſt inſtance, almoſt always affected *.

2. It prevails in wet ſeaſons, and in damp ſituations, more frequently than in dry; and the ſource of the diſeaſe may be often traced from thoſe ſituations which, from moiſture, confinement, heat, want of cleanlineſs, or other cauſes, may favour the generation of the worm.

Many circumſtances concur in rendering it probable that the diſeaſe, when perfectly formed, probably after the evolution of the head of the worm, is capable of being propagated by infection †; and alſo that this infection may exiſt and be communicated at a period long ſubſequent to the time of its firſt appearance, although the diſeaſe may have been ſuppoſed extinct, and although no probable cauſes may exiſt at the time to account for its reappearance ‡. To account for the origin of the diſeaſe, ſeveral

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* It has been obſerved that Bheeſties, or water-carriers in India, who carry the water in a muſhuk, or leathern bag, ſuſpended from their ſhoulders over the back and ſide, are moſt ſubject to the Guinea worm in thoſe parts which come in contact with the muſhuk.

† Dr M'Gregor, in his 'Medical Sketches of the Expedition to Egypt from India,' has given a very clear and ample account of the diſeaſe as it appeared, in an alarming degree, on board the Minerva tranſport, employed in that expedition. The reſult of his obſervation led him to conclude that it was infectious, particularly as it was found that ſeparation of the infected from the ſound, and extreme cleanlineſs, ſtopped the ravages of the diſeaſe.

‡ In the beginning of March 1801, after having been at ſea for more than a fortnight, in a veſſel from the iſland of Ceylon, I was attacked with this diſeaſe in my left knee. The head of the worm formed an exit firſt below the patella, and the cure was extremely tedious. More than a month afterwards I diſcovered another under the ſkin of the right metatarſus, nearly at the time that the wounds from the former had been healed. The veſſel was ſmall, and crowded with ſoldiers, but none of them had embarked with any ſigns of the complaint, Several of them were alſo affected with it before this time, and its prevalence after this became ſo alarming, that it was found neceſſary to remove all thoſe affected with it on board of another veſſel; notwithſtanding which, ſeveral freſh inſtances afterwards occurred of a very ſerious nature. The infection was probably communicated to me from the ſoldiers labouring under this diſeaſe, whom I regularly dreſſed every day.

ſeveral cauſes, probably, are neceſſary. Many damp ſituations exiſt in hot countries, wherein the diſeaſe is totally unknown. Confinement, heat, want of cleanlineſs in perſon and habitation, all ſeem to aſſiſt in its production. But the real cauſe of it, like that of many other phenomena, is ſtill much involved in obſcurity.

The means of prevention of this diſeaſe appear to conſiſt in an attention to cleanlineſs of the perſon and habitation, avoiding dampneſs and damp places, taking care to keep the feet and legs covered [*], and bathing in the ſea, when convenient, in preference to rivers or lakes. Patients with this complaint ſhould, as much as poſſible, be ſet apart from the reſt, and, when it can be done, removed to a dry and roomy ſituation; and all intercourſe with ſuch patients ſhould be reſtricted.

In the cure of this diſeaſe, many remedies and methods have been employed by authors [†]. Some remedies have been held as ſpecifics, internal as well as external. It does not appear, however, that any are entitled to this appellation.

When the diſeaſe commences with tumour, common emollient poultices ſhould be applied over the part where the worm is likely to appear; and, according to the degree of inflammation, the other means employed in caſes of phlegmon, ſuch as leeches, fomentations, &c. are to be alſo uſed, until ſuppuration takes place, or until the head of the worm appears through the ſkin. When the worm can be ſeen or found out, it ſhould be laid hold of with the forceps, and pulled very gently and gradually until there be a little reſiſtance, and the worm becomes moderately tight. The reſiſtance is often more or leſs overcome, and the extraction of the worm facilitated, by frictions with warm oil, as well as compreſſion of the limb all round, particularly in the direction of the reſiſtance, and from thence towards the wound. This operation tends alſo in a ſmall degree to obtund the pain which neceſſarily attends the extraction. When as much of the worm has been drawn out as the reſiſtance and the ſufferings of the patient will allow, the end of it ſhould be ſecured by means of a ligature or thread paſſed round it. The thread ſhould then be tied to a piece of ſmall bougie, twiſted lint, or ſmall quill, an inch and a half in length, and, with the ſlack part of the worm, is to be rolled up until it be moderately tight, taking care that it may not be on the ſtretch, which will occaſion fever, and a chance of breaking the worm. A piece of adheſive plaſter, or ſome other dreſſing, is neceſſary to retain it

[*] Soldiers in India, when off duty, go almoſt naked.

[†] Some of the ancients, in the extraction of the worm, employed leaden weights, which they appended to the end of the inſect; others rolled it on metallic tubes.

it in its place. Poultices are uſually continued for ſome time, particularly where there is tumour, to promote a diſcharge and the expulſion of the worm. In many caſes, I think, I have found a cataplaſm of raw onions, cut very ſmall, or bruiſed, and frequently changed, in a great degree contribute to the extraction of the worm. It creates leſs irritation than might be ſuppoſed, and is lighter and more convenient than the common poultice *. Of the external uſe of garlic in this complaint I have no experience.

In general, the extraction ſhould only be attempted once in the twenty-four hours; but when the diſeaſe is ſeated in muſcular parts, and when there is no great irritation, the worm may be tightened twice, or oftener, in that period. The length of the animal extracted at once is very uncertain. Sometimes none can be drawn out, at other times nearly a foot. The extraction ſhould be repeated in the ſame manner, as often as circumſtances will admit, until the whole of the worm comes away. The ulcer remaining after the extraction is to be treated as a common ſore, care being taken to uſe ſufficient compreſſion along the parts under which the worm was ſituated. When there are extenſive ſinuoſities, which is never the caſe if the worm is not ruptured by injudiciouſly pulling it, or accidentally breaking it by a blow, fall, or other violence, counter-openings are ſometimes adviſable in ſuperficial parts, to prevent the lodgement of ſanies. When there is much diſcharge, and of a ſanious quality, the remedies employed in ſimilar caſes, ſuch as bark, opiates, and ſtimulants, are alſo to be employed according to circumſtances.

Cautious extraction of the worm is particularly neceſſary to prevent its breaking, which is an accident but too common, particularly in the feet and ancles. When this unfortunately happens, tumour, fever, and tedious ſuppuration in ſome other part, are the frequent conſequences. Recourſe muſt again be had to cataplaſms and warm bathing, until the ruptured end of the worm can be again diſcovered, either at the former wound, or until it appears in ſome other part.

The aloe leaf pared on one ſide, or ſliced in two, and applied heated, with the inſide next the part, has been long recommended, and is a convenient application. I cannot ſay, however, that I have ſeen much advantage derived from it. When this application is tried, it ſhould be changed ſeveral times in the day, and applied as hot as the patient can bear it.

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* Velſchius recommends the uſe of ſalt frequently rubbed on the end of the worm, but I never ſaw it tried.

Soap-berries *(Saponariæ Nuculæ)*, bruiſed and made into a paſte with water, and applied over the ulcer when the worm has been broken, tends, I think, to favour its expulſion. If it can be conveniently removed, the application ſhould be uſed daily, accompanied with cataplaſms and fomentations, when there is much ſwelling.

Immerſion of the feet in warm water, when the complaint is ſeated there, is uſeful, and ſhould be repeated daily. Fomentation is almoſt always uſeful. When there is a great deal of tumour of the limb at firſt, and extenſive ſuppurations take place afterwards, it is probable that more than one worm is preſent. Hemorrhage ſometimes occurs in a bad ſtate of the diſeaſe from the ſpreading of the ulcers. In theſe caſes the worm is expelled in a diſſolved ſtate, or diſcharged in decayed portions; to promote which, care ſhould be taken to allow a free exit to the diſcharge by inciſions or otherwiſe, that the wounds may be reduced as ſoon as poſſible to the ſtate of ſimple ulcers.

When the worm can be diſtinctly felt by the fingers under the ſkin, before breaking through, it is adviſable to extract it by means of a ſmall inciſion made over the part where it is moſt ſuperficial, and, as near as can be judged, over its middle. A ligature ſhould then be applied, and the worm extracted double, in the manner before mentioned. By this method, which is practiſed by the Eaſt Indians, much pain and trouble would be ſaved.

The practice of cutting off the extracted part of the worm, and applying freſh ligatures each time, can be attended with no good effects, and can only be ſafe when a very great length of worm has been extracted, and when it has become dry, and is without life.

Mercury has been thought to poſſeſs the power of deſtroying this worm. Of this, however, I am extremely doubtful. Electricity, with this view, has been alſo employed, but I never ſaw it productive of any benefit.

With regard to the remedies uſed internally in the cure of this diſeaſe, I have nothing to offer. Aloes has been long in uſe, and was, no doubt, given as an anthelmintic. With this intention, I apprehend, it can be of little ſervice. The ſame may be ſaid of garlic, which has been ſtrongly recommended as a certain antidote, if given to the extent of two drachms daily. I never ſaw it, however, of the ſmalleſt benefit, after a careful and extenſive trial.

IV.

Caſes of Guinea Worm, with Obſervations. By Mr PATON, Surgeon of the Cirenceſter.

THE Guinea worm is a diſeaſe not uncommon among the laſcars, and frequently appearing, I underſtand, in the army in India, affecting both officers and men.

It ſeldom or never occurs in the ſhips trading to or from India. At leaſt, in ſeveral voyages which I have performed in the ſhips of the Honourable Eaſt India Company, I never had an opportunity of ſeeing a ſingle caſe of Guinea worm, until it broke out in the Cirenceſter during our late voyage homewards; and other ſurgeons in the ſervice, whom I have conſulted, agree in its being a very rare occurrence.

It occurred in the Indian army during its tranſport from Ceylon to the Red ſea; and many obſervations led Mr M'Gregor to ſuſpect that the diſeaſe was infectious, or, in other words, that the Guinea worm ſpread chiefly amongſt the men who lived with thoſe already affected with the inſect, which ſeemed, therefore, to propagate itſelf from one individual to another.

The origin and propagation of the worm has more commonly by others been attributed to the water of the particular countries where its appearance is common. The ſubject is curious, but involved as yet in the greateſt obſcurity. Nor do I pretend, on this occaſion, that the obſervations which are to follow will throw any immediate light upon it. The facts, however, may ſerve, with others, as data for future inveſtigation. But I cannot avoid remarking, that if the Guinea worm were received into the body from the water uſed for drink, or in waſhing, it ſhould be a more common occurrence in our ſhips; and, on this ſuppoſition, it would be difficult to reconcile its very rare appearance with the circumſtances of its occaſional propagation.

If Mr M'Gregor's conjecture be well founded, we will be at no loſs to explain its introduction amongſt the crew of the Cirenceſter, as an infected laſcar was received on board at Bombay, in whom the Guinea worm appeared during the paſſage thence to China. This, however, was the only inſtance at that time; nor did it reappear and ſpread amongſt the crew till many months after, when we arrived at St Helena on our paſſage homewards, long after the diſeaſed laſcar had been diſcharged.

Without hazarding any conjecture of my own, I ſhall here ſimply ſtate the facts as they occurred; after which I ſhall give ſhort notices of the different caſes, as extracted from the ſick journal of the Cirenceſter, and a table, exhibiting in one view the progreſs of the diſeaſe, and the order of its propagation amongſt the crew.

We ſailed from Bombay for China on the 15th Auguſt 1804, with 45 laſcars in addition to the ſhip's company, of whom one appeared, in the courſe of the paſſage, with a Guinea worm in his left ancle joint. He was diſcharged on the 5th of January uncured, along with 22 others in good health; the remaining 22 were brought in the ſhip to England, none of whom ever had the moſt diſtant appearance of worms; which, if the diſeaſe is infectious, is the more ſingular, as they meſſed together during the time they were on board. Twenty-four Chineſe embarked at the time the 23 laſcars were diſcharged, and had no appearance of the diſeaſe. Seven invalids received on board at Prince of Wales's Iſland had nothing of it. Of thoſe affected only two were men who had been engaged in India; all the others came from London in the ſhip.

The laſt of the Liberty men came on board from Canton in December, after which none of the ſeamen were on ſhore until their arrival at St Helena. Sailed from China January 5. Arrived at, and ſailed from, Poolopenang in the end of January, and arrived at St Helena April 2. where the worms began to make their appearance, on the 30th of May, in a man who had not been on ſhore. This diſeaſe is unknown at St Helena, and none of the other ſhips had it on board. At this time there were on board, including paſſengers, about 200 in all. The number with worms was 26. The principal change in the method of victualling was the ſubſtituting a pound of potatoes per man daily for their peaſe and flour. A good many fiſh (mackerel) were caught occaſionally, and four or five days freſh proviſion was obtained from the ſhore. Sailed from the iſland July 11.

This diſeaſe is not uncommon among laſcars, and, I underſtand, frequently appears in the army in India, affecting both officers and men. On the Malabar coaſt, ſome years ago, an officer's wife had one in the thigh, which inflamed to a great degree, and required an active antiphlogiſtic practice and regimen to overcome the inflammation.

The worm is an extraneous body, producing inflammation, and ſhould not be drawn forcibly, but very gently from day to day, and even then very cautiouſly, merely as if it were to diſcover whether it be looſe or faſt; it never comes away with advantage,

vantage, until it becomes of a dead-white appearance, and then the milky fluid it contains can be preſſed from one part to another, like as if a little milk had been injected into a fine tranſparent tube, formed of pellucid membrane. It gives the patient much pain when drawn; and it is of little uſe to make any thing faſt to it, as a little adheſive ointment prevents its retracting, and the piece drawn dries in the courſe of the day. The inflammation is to be treated in the uſual way. I uſed poultices.

TABLE, exhibiting the Order in which the Guinea Worm ſpread amongſt the Crew of the Cirenceſter.

1805.	*1ſt, St Helena.*	Guinea		
May 30	P. Waldſtrom	Worm.	Seaman.	Cured July 12. 1805.
June 9	S. Propavo	——	——	—— Aug. 29. ——
14	A. Otkin	——	——	Diſch. Sept. 15. ——
17	J. Berry	——	——	Cured July 31. ——
19	J. Fielding	——	——	—— 15. ——
20	J. Melthier	——	——	—— 29. ——
22	J. Martin	——	B. M.	—— Aug. 22. ——
—	C. Goſling	——	Seaman.	—— July 10. ——
24	R. Seal	——	——	Diſch. Sept. 15. ——
25	A. Fanaſſi	——	——	Cured Aug. 7. ——
—	J. Split	——	——	—— 24. ——
27	M. Louſſe	——	——	Diſch. Sept. 15. ——
July 1	M. Minus	——	——	Cured July 29. ——
–	T. Wilkinſon	——	Carpenter.	—— Aug. 10. ——
–	J. Jamiſon	——	Steward.	—— 27. ——
7	Geo. Baily	——	——	—— Sept. 15. ——
8	J. Peters	——	——	Diſch. —— ——
11	J. Roebuck	——	——	Cured Aug. 29. ——
	2d, At Sea.			
13	T. Ward	——	Sail-maker	—— Sept. 5. ——
—	F. Nelſon	——	Seaman.	—— Aug. 28. ——
14	J. Price	——	——	—— 22. ——
16	J. Longber	——	——	—— Sept. 2. ——
22	J. Brown	——	Cook.	Diſch. Sept. 15. ——
—	C. Churchill	——	Seaman.	Cured —— 8. ——
23	G. Polard	——	Boatſwain	Diſch. —— 15. ——
31	J. Frederick	——	Seaman.	Cured Aug. 7. ——
Aug. 9	P. Waldſtrom	——	——	Diſch. Sept. 15. ——

The Order of their Meſſes, with the Number in each.

					Number of People forming the Mess.
May	30.	P. Waldſtrom	In the ſame Meſs.		6
July	16.	Iſaack Longber			
June	9.	Steph. Propavo	ditto	ditto	9
	14.	Ant. Otkin			
	25.	A. Fanaſſi			
	—	John Split			
July	1.	Mindar Minus			
	31.	John Frederick			
	17.	John Berry	ditto	ditto	9
	13.	Thomas Ward			
	—	Frederick Nelſon			
June	19.	John Fielding	ditto	ditto	8
	20.	John Melthier			
	22.	James Martin	ditto	ditto	8
	24.	Robert Seal			
July	14.	James Price			
June	22.	Charles Goſling	ditto	ditto	10
	27.	Manus Louffe	ditto	ditto	7
July	8.	John Peters			
	11.	Jonas Roebuck			
	1.	Tho. Wilkinſon	ditto	ditto	2
	-	Joſeph Jamiſon	ditto	ditto	7
	7.	George Baily			
	23.	George Polard			
	22.	John Brown	ditto	ditto	8
	—	Charles Churchill			

PETER WALDSTROM, æt. 30. ſeaman, St Helena, a German of a ſanguine temperament, gives the following account of his complaints.

May 9th. This morning he drew two or three inches of a white, round, ſlender ſubſtance from a ſmall opening, a little above the outer ancle of the left leg. His leg was ſomewhat ſwelled and painful 14 days ago; a ſmall veſicle formed, and diſcharged a little water; it then healed, but has again begun to diſcharge ichorous matter within theſe laſt three days. Finding a ſmall ſinus, I enlarged the opening to half an inch.—Curetur Cerato ſimplice.

June 4th. The white ſubſtance, reſembling a piece of catgut, has again appeared. I faſtened it to a piece of linen rolled to the thickneſs of a writing-quill, and got three turns.

6th. To-day, when in the act of turning the roller, the ſubſtance ſuddenly broke about half an inch within the edge of the ſore, without any change in its appearance. I laid open the ſinus to the bottom, being about an inch. Diſcharge of a brown colour, turbid and ichorous.

9th. Ulcer looks well; diſcharge purulent. Some hardneſs and inflammation over the tendo achillis oppoſite the wound. Several doublings of the ſubſtance have appeared on the outer edge of the ulcer, which have been ſecured as before.

11th. The ſubſtance came away to-day with perfect eaſe; the end flat, and very ſoft. About 10 inches in all extracted.

18th. The tumour has diſcharged a little ſerous matter by the ulcer. Inflammation almoſt gone.

19th. Inflammation and ſwelling returned. Watery diſcharge from the ulcer continues.—Cataplaſm. Emolliens.

20th. Ulcer very dark-coloured.—Cont. Catapl.

28th. Ulcer preſerves nearly the ſame appearance. Inflammation and ſwelling diminiſhing.—Cont. Cataplaſm.

July 4th. Ulcer granulating at the edges; tough adheſive yellow matter adhering to the bottom; diſcharge ichorous. Swelling and inflammation gone. A little pain about an inch under the ſore, along the edge of the outer ancle.—Curet. Mercur. Precip. Rub.

5th. Ulcer cleaning; diſcharge ſomewhat purulent.—Rr. Merc.

12th. Ulcer nearly well. No return of inflammation, but ſtill a little pain, as before. Is at work.

STEPHEN PROPAVO, æt. 30, Seaman, St Helena, a Ruſſian, of a ſanguine melancholy temperament.

June 9th. About an inch of ſubſtance, reſembling ſtrong catgut, tinged browniſh at the extremity, which is pointed, was found protruded from an opening over the root of the left middle toe, of which I drew out eaſily four inches with the forceps, and ſecured it to a roller of linen. When left looſe, it retracted near an inch, but without a regular vermicular motion. The foot is œdematous. The foot and leg have been ſomewhat ſwelled, and a little painful, for two weeks paſt. A puſtule formed and broke three or four days ago, from the opening of which the worm appeared to-day.—Curet. Cerato ſimplice.

11th. After getting one turn to-day, the worm became fixed; on uſing a little more force, a crack was heard, and another turn was got with perfect eaſe, when it again became immoveable.

14th. Have got from half a turn to two turns daily. To-day found it immoveably fixed, and, on attempting to force it, a ſlight laceration took place, and a ſmall round white body protruded into the lacerated part, which I ſeized with a pair of forceps, and found it ſoft as mucus. Deſiſted from turning.

16th. The worm has recovered its firſt appearance by the lacerated part having healed. Much fœtor from the roller, which I removed and applied a new one; got about one turn of the worm.

JAMES MARTIN, æt. ——, Boatſwain's Mate.

June 22d. A worm under the inner ancle was diſcovered and ſecured to a roller.

24th. Much pain, ſwelling, and ſerous diſcharge.

27th. Worm immoveable.

30th. Worm broken, but the end in ſight.

July 1ſt. Conſiderable inflammation and pain.—Catapl. Emolliens.

4th. Swelling gone.—Omitt. Cataplaſm.

7th. A tumour forming a little above the opening.—Repr. Cat. The worm has diſappeared to-day.

12th. Diſcharged pus from the tumour by inciſion. Has much pain in the ancle joint. Swelling diminiſhing.—Repr. Catapl.

16th. Swelling continues to diminiſh. Still much pain, which prevented ſleep laſt night.—Cr. Catapl. Opiat. h. ſ.

26th. A puſtule broke yeſterday near the inner ancle, from which the worm has reappeared. Swelling nearly gone. To hang looſe.

Auguſt 2d. A conſiderable portion of the worm drawn out daily, which dried and ſhrivelled during the day. It was become much more tender, and has diſappeared to-day.

5th. Much inflammation.—Cataplaſm. Emolliens.

12th. Inflammation gone. Still a little ſwelling of the ancle joint, and a few drops of water from the openings where the worms were.

22d. A little pain and ſtiffneſs in the tendo achillis when he walks.

ROBERT SEAL, æt. ——, Gunner's Mate.

June 24th. A worm in the fore part of the right ancle joint, Three weeks ago felt a little pain at times in this part, and over the outer ancle. In both places he could perceive under the ſkin a hard body, like a piece of cord, turning in various directions, and moveable when preſſed by the fingers; could, in ſome places, trace it a little way by the ſight, the ſkin being elevated.

vated. A little itching at times. There has never been either ſwelling or inflammation until three days ago, that a ſmall puſtule roſe and broke, and to-day a ſtrong worm has made its appearance, which was faſtened to a roller.

30th. About five inches on the roller, worm becoming tender. Much pain, incipient ſwelling, and inflammation. Omitted the roller.—Applic. Catapłaſ. Emolliens.

July 5th. Inflammation and ſwelling gone. A little ſwelling and inflammation at the root of the little toe for two days, and a ſmall veſicle formed yeſterday, which broke to-day; and there is a diſcharge of watery matter from a ſmall orifice in the ſkin at the centre of the veſicle.—Cont. Catapl.

10th. Worm getting ſtronger, and bears drawing a little. Sore under the toe diſcharging.—Cont. Catapl.

12th. Inflammation returned laſt night to a conſiderable degree.—Cont.

13th. Found eight inches of the worm detached to-day.

18th. A diſcharge of pus from under the toe, and a worm has appeared, rather tender in its ſubſtance.

22d. The worm broken, and inflammation returning.—Rep. Catapl.

27th. The tumour broke, diſcharged a little pus and water, and another worm has appeared, tender as before. To hang looſe.

29th. Worm again broken. A bliſter under the outer ancle.—Cont.

Auguſt 3d. Inflammation increaſing. Was rather reſtleſs laſt night. Skin hot, tongue white, thirſt, pulſe 86, body regular.

5th. No return of febrile ſymptoms. Still much inflammation.

11th. Bliſter broke ſix days ago, and to-day a hair-like ſubſtance hangs out an inch. Swelling and inflammation almoſt gone.

20th. Worm again diſappeared. Inflammation returning.—Catapl.

September 15th. The inflammation and worm reappeared and diſappeared again and again, and to-day the foot is nearly well.

FREDERICK NELSON, æt. 34.

July 13th. A worm in the left foot, near the root of the little toe. Says he had much itching a month ago about the knee joint, which gradually deſcended, accompanied by pain, to his foot, where he could feel the worm coiled under the ſkin, where a watery veſicle has formed and broken, and the worm has appeared. Has a little pain on walking, but no ſwelling or inflammation.

15th. Pain, ſwelling, and a little inflammation.—Catapl. Emolliens.

28th. Inflammation diminiſhing; worm tender.—Cont. Cataplaſm.

29th. The worm has diſappeared.

Auguſt 5th. Swelling and inflammation returned.—Cataplaſma.

10th. Worm appeared, and rather tender. Inflammation diminiſhing.—Cr. Catapl.

11th. Extracted ſeven inches with eaſe; its end ſoft.

13th. Fifteen inches extracted as above. Swelling continues.

20th. Still much pain; ſwelling almoſt gone.—Om. Catapl.

28th. Only a ſtiffneſs of the tendo achillis remaining.

THOMAS WARD, æt. 22, Sail-maker.

July 13th. About a month ago had an itching in his foot, which laſted about a week, when a veſicle formed and broke, and a week ago a worm appeared in each. Has never had pain, ſwelling, or inflammation.

24th. The worms hang looſe. The right one broken two days ago. An incipient inflammation.—Catapl. Emolliens.

28th. A tumour forming over the right ſhin-bone. The left inflaming; its worm hanging looſe.—Catapl. Emolliens.

Auguſt 4th. Right worm reappeared.

5th. Right diſappeared again, and ancle ſwelling. Left as before.

September 5th. The worm and occaſional inflammation have been breaking and returning at times, and he is now quite well.

JAMES PRICE, æt. ——, Seaman.

July 14th. A watery veſicle formed and broke outſide the right foot, without any previous affection, three weeks ago; a very tender worm appeared to-day. To hang looſe.

17th. Worm becoming ſtronger.

20th. Able to bear gentle drawing by the forceps.

26th.—Inflammation and ſwelling taking place.—Catapl.

28th. Worm diſappeared. Inflammation and ſwelling as before.—Cont.

Auguſt 4th. Worm reappeared, and three inches came away; end ragged. Inflammation increaſing.—Cont. Cataplaſm.

12th. Inflammation diminiſhing faſt. Very little pain. A veſicle on the outer ancle, which diſcharged contents ſerous.

22d. Swelling and inflammation gone. Veſicle well. Is at work.

ISAAC LONGBER, æt. ——, Seaman.

July 16*th*. The left leg has become ſomewhat ſwelled laſt night.

19*th*. A veſicle containing water has formed.

27*th*. The veſicle has healed, and another formed.

Auguſt 2*d*. The laſt veſicle has not ſkinned over, and there is a ſmall point in the centre formed of pus. No pain.

15*th*. The veſicle never healed, and to-day an inch of ſtrong worm projects. Slight pain and inflammation. To hang looſe.

25*th*. Inflammation increaſing.—Cataplaſm. Emolliens.

29*th*. The worm of a dead-white appearance. A little extracted daily, with very little pain.

September 1*ſt*. Drew out about five inches to-day.

2*d*. About 15 inches drawn to-day, with apparently a pointed extremity, but being empty makes it uncertain.

MINDAR MINUS, æt. ——, Seaman.

July 1*ſt*. A ſtrong worm outſide the calf of the leg. No ſwelling or inflammation even to within $\frac{1}{4}$ of an inch of the orifice, which was a puſtule two days ago. Allowed it to remain without a roller.

4*th*. About three inches of the worm ſhrivelled and dry. On drawing it out, it retracts again, unleſs forcibly held.

6*th*. Applied a roller.

13*th*. Worm becoming very tender. Found four inches on the roller. Allowed it to remain looſe, with a thread tied to it, No inflammation.

18*th*. The worm ſo tender, that it has broke and diſappeared.

22*d*. Leg ſwelling.—Cataplaſm. Emolliens.

27*th*. Swelling gone. A worm appeared yeſterday, ſo tender, that it broke when wiping the ſore.

29*th*. No reappearance of worm. No ſwelling. Very little pain.

THOMAS WILKINSON, æt. ——, Carpenter.

July 1*ſt*. A worm about the centre of the left tibia, ſtrong and firm, of which about five inches are left hanging from the opening. Had an itching three weeks ago, when he could perceive under the ſkin a hard ſubſtance running in various directions, in ſome places convoluted. Ten days ago the leg put on an œdematous appearance, which is now gone, previous to which he received a ſlight bruiſe, which rubbed off a little cuticle, where the worm has come.

7th. Found the worm broken to-day. Incipient inflammation.—Catapl.

11th. Found three inches more worm detached to-day. Inflammation very extenſive. Ulcer two inches in length, foul and fetid. Has been walking much, and working.—Cataplaſma Emolliens.

13th. Another ſmall opening cloſe above the other. A piece more worm found looſe. Conſiderable hemorrhagy laſt night.—Cr.

20th. Inflammation diminiſhing. Ulcer healing, but matter forming cloſe to the ulcerated part.—Cont. Cataplaſma.

25th. The tumour has burſt, and diſcharged pus mixed with ſerum.

31ſt. The former ulcer healed, the latter healing. Inflammation almoſt gone.

Auguſt 10*th*. Ulcer nearly cloſed. Diſcharge watery.—Aſperg. Merc. Prec. Rubro. After another ſprinkling, the ulcer healed kindly.

JOSEPH JAMISON, æt. 33, Ship's Steward.

July 1*ſt*. A very tender worm over the root of the toes of the right foot. Has had an itching all over the foot for three weeks paſt, and has torn the cuticle in ſome places by ſcratching. Had a veſicle ſeveral days ago.

6th. Another in the ſole of the left foot, very tender, with much inflammation.—Cat. Emol. To uſe a roller.

10th. Right worm comes ſlowly ; foot inflamed. Very little of the worm got from the leg. Swelling gone.

16th. Right one preſerves an uniform ſtrength, and comes ſlowly. Left one diſappeared.

30th. The right one came away whilſt turning the roller, with a regular pointed extremity, without giving pain.

Auguſt 12*th*. Right foot well. No ſwelling or inflammation of the other, and the worm has acquired ſtrength to bear drawing a little daily.

27th. A little drawn every ſecond or third day. Laſt night left about an inch looſe, and to day found five inches in his ſhoe, with apparently a pointed extremity. No ſwelling or inflammation.

JOHN BERRY, æt. ——, Seaman.

June 17*th*. A white-coloured ſubſtance, about the ſize of large catgut, pointed, projecting from the tendo achillis of the left leg, about an inch of which I have drawn out, with a little pain, four inches, of a ſerpentine figure; it feels firm beween the fingers. It broke with a loud ſnap when turning, without ſhowing any tendency to break by previouſly elongating. A little milky fluid dropped from it, and it became quite flaccid; a little of the ſame fluid iſſued from the orifice.

Says his ancle was ſwelled 14 days ago, and a veſicle formed, and diſcharged a watery fluid, where the worm has appeared. No appearance of inflammation remaining.—Curet. Cerat. ſimp.

24th. A tumour forming near the former orifice.—Catapl. Emol.

25th. A ſmall quantity of purulent matter diſcharged.

July 4th. A phlegmon forming on the fore part of the leg.—Cat. Emol.

5th. Tumour broke, and diſcharged a little pus with reddiſh ſerum.

6th. Original opening heal. A ſlender worm has appeared at the firſt phlegmonic opening. To be left hanging looſe.

10th. Worm gaining ſtrength.

13th. A worm at the ſecond orifice. To be left looſe.

14th. A tender worm has appeared on the fore part of the ancle joint, where a bliſter has formed. Left it looſe.

16th. Ten inches of the ſecond worm cut off to-day, and left as before.

19th. Five inches of the ſecond got away, with evidently a pointed extremity, reſembling the end which firſt appeared; 18 inches of ſubſtance little thicker than a horſe's hair, and having much the appearance of a wetted ſtrong fibre of flax, found under the dreſſing. Had a febrile paroxyſm yeſterday.—Pulv. Cort. Peruv.

28th. No return of paroxyſm. Worm on the fore part of the ancle joint has diſappeared, and the other was found broken under the dreſſing.

31ſt. The two openings near the outer ancle ſtill diſcharge a few drops of ſerous matter. The one on the fore part of the joint healed. A little pain over the ſhin bone above the ancle.

John Fielding, æt. ——, Seaman:

June 19th. A worm under the outer ancle of the right, and another under the inner ancle of the left leg, where he had watery veſicles and a little ſwelling a fortnight ago, which healed, and have formed and broke again. No pain. Uſed a roller of linen to each.

21ſt. Much pain in the right leg, ſwelling, and ichorous, brown-coloured diſcharge.

27th. Removed the right roller, and found 16 inches of worm on it, half of which was extracted to day. Faſtened a clean roller.

30*th*. Have got ſix inches more of the right. Left ſomewhat more painful.

July 1*ſt*. Three and a half inches more of the right extracted with great eaſe; it has a pointed extremity, and is not flaccid. Removed the left roller, and found ten inches on it; being very tender, left it looſe.

5*th*. The left foot much ſwelled.—Cataplaſm. Emolliens.

10*th*. Right foot well. Inflammation of the left nearly gone. Worm diſappeared.

15*th*. Foot ſo far well, that he is doing duty.

ANTONY OTKIN, æt. ——, Seaman, of ſanguine temperament.

June 14*th*. About an inch of a rather flaccid worm from a ſmall opening immediately under the left outer ancle, where a watery veſicle formed and broke 16 days ago. Got three turns around a roller of lint. No ſwelling of the foot. Much pain when drawing the worm. Had no previous pain in the affected part.

17*th*. Immoveable to-day.

24*th*. Worm again immoveable yeſterday and to-day. Very much pain on attempting to turn, and the worm very tender.

25*th*. The worm broke on attempting to turn.

29*th*. Much inflammation of foot and ancle.—Catapl. Emol.

July 2*d*. A phlegmon forming a little behind the opening.

10*th*. The phlegmon broke and diſcharged a little pus yeſterday. Says he found about three inches of worm looſe on removing his dreſſing this morning, which he threw away. Swelling and inflammation diſappearing ſlowly.—Cont. Cataplaſm. Emolliens.

17*th*. Scrotum and penis much ſwelled, colourleſs, and elaſtic, which he firſt obſerved at ten o'clock laſt night.

20*th*. Swelling of ſcrotum gone. Swelling of foot nearly gone.

28*th*. The two ſmall openings continue to diſcharge a little ſerous matter. No reappearance of the worms.

Auguſt 1*ſt*. A worm has appeared inſide the thigh, a little above the knee, where there was a puſtule two days ago.

3*d*. Worm broken. No ſwelling or inflammation of the thigh.

6*th*. Worm reappeared double, and, on drawing, find one end terminates in a fine hair-like ſubſtance.

8*th*. A colourleſs tumour, containing fluid on the right heel.

20*th*. A veſicle diſcharged under the left outer ancle.

25th. Right heel inflamed. Diſcharged the tumour by inciſion; it contained pus.

September 15th. The inflammation diſappeared gradually, but a worm appeared at the inciſed part, with which he was to-day diſcharged the ſhip. An irregularly formed ſubſtance, approaching to an oval, was diſcovered, probably adhering to the ſeptum ſcroti, which gave no pain, except when roughly handled.

JOHN MELTHIER, æt. 18, Seaman.

June 20th. A worm projecting about an inch from under the left outer ancle, preceded by a bliſter. Had a little pain for ſome time, and itching. Worm rather tender; faſtened it to a roller.

22d. Found the worm broken to-day.

28th. Worm reappeared, and ſecured to a roller. Another inſide the right heel, where a bliſter formed two days ago, and broke yeſterday. The ſubſtance of the worm very tender. Let it hang looſe.

July 4th. Left worm again broken. Much inflammation.—Cataplaſm.

10th. Inflammation very much reduced. Right one getting ſtronger.

13th. Tumour forming outſide the left calf.—Cataplaſm. Emolliens.

20th. Can trace the right worm under the ſkin, and at a little diſtance from the orifice; can feel it tenſe when drawn; have got a little daily; it dries and ſhrivels in the courſe of one night.

24th. The right came to a pointed extremity to-day. Laid open the tumour, and diſcharged a little pus floating in ſerum.

25th. The left worm has not reappeared. Still a little inflammation.

29th. The inciſion and former openings healed. Can feel a hollow an inch in length, reſembling a ſinus, near the inciſion. Is at his work.

CHARLES GOSLING, æt. ——, Seaman.

June 22d. Four inches of worm ſtrong and pointed between the ancle and heel. Cut it off, and ſecured to a roller. A ſmall puſtule appeared 16 days ago, and healed again, from the ſite of which this worm has protruded.

25th. Found 9½ inches on the roller. Applied another roller.

July 1ſt. Found the worm broken to-day. Have not been able to extract any ſince laſt report. Much inflammation ſince laſt night.—Cataplaſm.

5th. Swelling and inflammation gone.—Omitt. Cataplaſm.

10th. Sore heal. Is at work.

George Baily, æt. ——, Gunner's Servant.

July 7th. A veſicle about half an inch in diameter, containing a dark watery fluid, formed under the right inner ancle yeſterday, which I have diſcharged to-day, and find a very minute opening in the centre of the bliſtered part, from which half an inch of a hair-like ſoft ſubſtance hangs. Says he has had no pain, but an itching for ten days, and has a firm cord-like ſubſtance under the ſkin.

18th. The hair-like ſubſtance gone. Cuticle again forming. No ſwelling or pain.

22d. The place well. The left leg ſwelled, pits a little on preſſure.

26th. The leg has been inflamed a little for two days, and a puſtule formed and broke inſide the calf. The opening of the ſkin one-third of an inch in diameter, filled with a tough inflammatory incruſtation, from the centre of which hangs half an inch of ſoft hair-like matter.

28th. Drew away the inflammatory exſudation with a pair of forceps, and left a thimble-like cavity. The hair broken.

Auguſt 1ſt. The right foot has become much inflamed.—Cat. Emolliens.

2d. Both feet inflamed, and a tender worm in each.

4th. A little got daily. The right worm came away with the dreſſing, apparently broken. Swelling ſpreading up the leg.—Cat. Emol.

5th. A double portion of the right appeared, which, on drawing it, broke.

25th. Has had a little occaſional inflammation, which has been relieved by poultices, and draws a little of the worm from time to time; but it is very tender, and breaks frequently.

September 15th. Continued as laſt report, and is now quite well.

John Peters, æt.——, Seaman.

July 8th. A ſmall puſtule formed and broke on the ancle-joint; a hair-like ſubſtance hangs out. No ſwelling, pain, or inflammation.

12th. Every appearance of worm gone. Diſcharge ichorous.

Auguſt 6th. Ancle ſwelling, ſomewhat inflamed.—Catapl. Emolliens.

12th. Swelling and inflammation gone.

20th. Worm reappeared pretty ſtrong. Let it remain looſe.

September 15th. The worm has diſappeared repeatedly, and he has been from time to time as in the reports above; and at preſent much inflammation of the ancle.

JONAS ROEBUCK, æt. ——, Seaman.

July 11*th.* A large inflamed tumour immediately under the knee-joint.—Cataplaſm. Emolliens.

14*th.* The tumour broke yeſterday, and diſcharged a little pus mixed in ſerous matter of a red tinge. The opening is filled with an inflammatory exſudation, hollow in the centre, from which hangs an inch of ſlender ſoft matter, like a hair or wetted fibre of flax.—Cont. Cat. Emol.

22*d.* The fibry matter and inflammatory cruſt ſeparated. A ſtrong worm, which retracts quickly after drawing, has appeared. Several ſmall openings diſcharging ſerous matter. A roller.

29*th.* The inflammation diminiſhing, but much pain in the joint, and a little redneſs above the knee. Hæmorrhagy laſt night. The worm retains a uniform appearance, and comes away daily.

Auguſt 3*d.* Knee rather more ſwelled to-day.—Cont. Cat.

12*th.* The inflammation continues, with a large moveable tumour inſide the thigh.

18*th.* The tumour contains matter, a little of which is diſcharged by the opening of the worm.

21*ſt.* The worm extracted, its extremity pointed, full and firm. The diſcharge continues. The abſceſs is above the joint, and the opening on the fore part the tibia, about an inch below the joint.—Cont. Cataplaſm.

22*d.* Enlarged the opening. Still conſiderable diſcharge.

29*th.* No diſcharge. A little pain in the joint, and ſtiffneſs of the ham.

JOHN BROWN, æt. ——, Ship's Cook.

July 22*d.* A veſicle five days ago, preceded by itching; and a worm appeared yeſterday, which, he ſays, has retracted to-day.

29*th.* Says he obſerved a ſlender thread, which broke when drawn to-day. A little itching at times. No pain, ſwelling, or inflammation.

Auguſt 16*th.* Says the worm appears, diſappears, or is broken, from time to time. No inflammation. A watery diſcharge.

September 15*th.* Continued to go on as before. Foot and ancle at preſent much inflamed and ſwelled.

CHARLES CHURCHILL, æt. ——, Seaman.

July 22*d.* A watery veſicle three-fourths of an inch in diameter, over the foot two days ago; from the centre of which hangs a ſlender thread. Has had no previous affection.

26*th.* Worm diſappeared. Bliſtered part healing.

Auguſt 30*th.* Has got a little from time to time. Ancle very much inflamed to-day. No worm in ſight.—Cat. Emolliens.

September 8*th.* No complaint.

GEORGE POLARD, æt. ——, Boatſwain.

July 23*d.* Says that for ſix weeks paſt he has had an itching at times in his right leg and foot, which was always relieved by waſhing or rubbing. Has alſo had a pain in the calf, which he ſuppoſed to be rheumatic, and wore worſted ſtockings without relief. Three days ago a veſicle formed and broke, and a ſoft hair-like ſubſtance hangs from the centre from a very minute opening. No ſwelling, pain, or inflammation.—Curet. Cerat. ſimpl.

Auguſt 4*th.* The hair has diſappeared for ſome time, and reappeared again two days ago. Feels pain and itching in the other leg.

September 13*th.* Has been drawing a little of the worm from time to time. Broke it a few days ago. Much inflammation today.—Cataplaſm. Emolliens.

JOHN FREDERICK, æt. ——, Seaman.

July 31*ſt.* Says a ſmall puſtule appeared a little above the knee, inſide the left thigh, ſeveral days ago, without any previous complaint, from which a pretty ſtrong worm protruded to-day, of which I have drawn out four inches. No ſwelling, pain, or inflammation.

Auguſt 5*th.* Worm ſtill hangs looſe, and the portion laſt drawn ſhrivels and dries in the courſe of the day. No inflammation.

7*th.* Has produced about ſix inches of dried worm apparently pointed, which, he ſays, he drew out with eaſe this morning.

AZARY FANASSI, æt. ——, Seaman.

June 25*th.* A worm over the centre of the left middle metatarſal bone.

July 3*d.* Worm broken; foot much inflamed.—Catapl. Emolliens.

10*th.* Still conſiderable inflammation.—Cont. Cataplaſm.

12*th.* The worm has reappeared in doublings, and is very tender. Have drawn out and cut away eight inches, and left the end looſe.

13*th*. Two pieces, of about two inches each, found under the dreſſing. Still much inflammation. A ſore forming under the outer ancle.—Cont. Catap.

18*th*. Sore under the ancle, filled with tough matter. The opening, fore part the foot, healed up. Inflammation much diminiſhed.—Cont. Catap.

22*d*. Aſperg. Ulcus Merc. precip. Rubro. Omitt. Cataplaſm.

27*th*. Swelling gone. No pain. Ulcer healing.—Cont.

Auguſt 7*th*. Foot well.

JOHN SPLIT, æt. ——, Seaman.

June 25*th*. A worm under the right outer ancle. Uſed a roller.

July 13*th*. Worm become very tender. Found only ſix inches on the roller. Tied a thread to the worm, and left it looſe.

14*th*. The left foot much ſwelled to-day, with a veſicle in the centre of the fore part. Much pain.—Utat. Catapl. Emolliens.

22*d*. The right one comes away ſlowly. Swelling left foot nearly gone. An opening, filled with inflammatory cruſt, in the centre of where the veſicle was.—Cont. Cataplaſm.

24*th*. A ſtrong worm in the left. Right one alſo become ſtrong. Both left hanging looſe.

Auguſt 2*d*. Left foot ſwelling. Worms extracted ſlowly.—Cataplaſm.

6*th*. Right worm as before. Left diſappeared. Swelling increaſing.

7*th*. Extracted 12 inches of worm, with a pointed extremity.

15*th*. Right foot well. Swelling and inflammation of left diminiſhing.

20*th*. A little fungus where the left worm protruded.—Apr. precip. Rub.

24*th*. Only a ſmall ulcer remaining.

MANUS LOUFFE, æt. 56, Seaman.

June 27*th*. A worm over the right inner ancle. Got $3\frac{3}{4}$ inches, when it broke ſuddenly with a ſnap.

28*th*. Again found the worm, and ſecured it to a roller.

30*th*. Removed the roller, and found $5\frac{1}{2}$ inches. To hang looſe.

July 2*d*. Inflammation appearing.—Cataplaſm. Emolliens.

5*th*. Worm become very tender. An orifice formed near the former.

10*th*. Inflammation and ſwelling diminiſhing. There has been a little fungus from the laſt opening, but it is nearly gone. Worm broken.

17*th*. A worm has appeared in the edge of a ſuperficial ſore formed ſome time ago by a hurt, without any previous warning, in the left leg.

20*th*. The laſt mentioned worm broken; no ſwelling or inflammation. A ſmall puſtule, with a little ſurrounding inflammation, above the left knee. A worm has appeared under the outer ancle.

29*th*. Swelling of the right diminiſhing ſtill. The worm under the left outer ancle comes ſlowly.

Auguſt 3*d*. A worm from the puſtule over the left knee, and a bliſter on the outſide the right foot. A diſcharge of pus from the place where the worm broke in the left calf.

6*th*. Worm in the left foot broken. Veſicle under the right outer ancle.

10*th*. Worm in the thigh broken. An ulceration taken place under the left outer ancle; diſcharge fetid. Right veſicle broken, and a worm appeared. Diſcharged pus, by inciſion, from the left calf.

19*th*. Worm appeared in a ſmall puſtule under the left knee. The left heel much inflamed, ſwelled, and painful.—Catapl. Emolliens. The worm again diſappeared under the ancle.

25*th*. Right ancle joint inflaming. Worm under the knee continues.

Sept. 15*th*. The worms diſappeared and reappeared as above, and he was diſcharged with one under the knee joint, when a ſudden crack was heard, and two more turns got with eaſe. No particular appearance in the worm. Œdema diminiſhing ſlowly. Ulcer of a ſomewhat ſpacelated appearance. Diſcharge watery, of a browniſh tinge, with, at times, a little browniſh matter reſembling coffee grounds. Found 8½ inches on the old roller.

18*th*. Found the worm broken. Find three inches on the roller. Foot very painful. Has always had much pain when in the act of extracting the worm.

25*th*. The œdema continues to diminiſh; diſcharge leſſening. Seven inches extracted to-day, ſoft and flaccid, came to an extremity with eaſe, flat and ragged.—Curet. Cerato ſimplice.

26*th*. Swelling and inflammation to-day.—Catapl. Emol.

July 3*d*. Swelling gone.—Omitt. Cataplaſm. Cont. Ceratum.

7*th*. A bliſter, with ſurrounding inflammation, has appeared in the centre of the ſole of the foot, which was only ſlightly painful yeſterday.

13th. Foot well. Is at work.

19th. A worm has appeared at the ſole of the foot at the place of the former bliſter. Worm ſtrong, exciting much pain when drawn forcibly. Another near the right outer ancle. No ſwelling or inflammation. Each projects about an inch and a half not ſtraight, but a little ſerpentine and ſtiff.

25th. On drawing the left, about an inch came away, hollow in the end, leaving the worm of the ſame appearance as before. Swelling and inflammation, as before, returning.—Catapl. Emolliens.

27th. Have got very little of the worms, they are becoming flaccid, are allowed to hang looſe; much pain when drawn, and are drying and ſhrivelling.

31ſt. The right worm has diſappeared.

Auguſt 4th. Worm reappeared under the right outer ancle. The one in the ſole of the foot diſappeared. Let it hang looſe.

5th. Right worm again broken. Left (in the ſole) diſappeared.

8th. Worm in the ſole reappeared double.

11th. Worm broken. Both ends project about half an inch each, and tender.

17th. Both ends of the worm drawn out; about ſix inches of the one, and rather leſs of the other. Extremities ſoft and ragged.

24th. Right foot inflaming.—Cataplaſm. Emolliens.

29th. No inflammation, pain, or ſwelling.

September 15th. No return ſince laſt report.

PETER WALDSTROM.

Auguſt 9th, 1805. A ſmall puſtule formed and broke on the lower edge of the right gluteus muſcle eight days ago, from which a very tender worm appeared, and has diſappeared this morning. There is ſtill a ſmall incruſtation on the other leg.

16th. The worm reappeared. No ſwelling, pain, or inflammation. Is and has been at work.

28th. The worm has again diſappeared, and conſiderable inflammation has taken place.—Cat. Emol.

Sept. 15th. The inflammation went off gradually, and the worm never reappeared.

V.

Caſe of Encyſted Aſcites, with Hydatids. By K. Macleay, M.D. Oban.

Some time ago I was called to viſit a man named Monro, who lived at the diſtance of five miles from me. The extreme wretchedneſs which the economy of his hovel, and the appearance of his wife and five children, together with his own miſerable ſituation, reclining upon a parcel of ſtraw, and labouring under the double misfortune of diſeaſe and poverty, exhibited, called up that ſympathy which intereſts the heart in the ſufferings of humanity.

Upon inquiry, I found he was in the prime of life, aged about 40, by trade a weaver, and that he had enjoyed uninterrupted good health until 18 months before, when his diſorder began. For a conſiderable period he was incapable of attending his occupation, or providing for his family, and had never thought of applying for aſſiſtance till it proceeded to an alarming height. From his appearance I conſidered his caſe to be aſcites, and, from the violence of the ſymptoms, a very hopeleſs one.

On examination, I found the abdomen greatly diſtended, with evident fluctuation, although not quite ſo yielding as is generally the caſe, which I attributed to the exceſſive enlargement and ſtretching of the muſcles. The legs were ſomewhat ſwelled, and retained an impreſſion; a frequent ſmall pulſe; tongue and ſkin dry; thirſt urgent, and urine rather ſcanty; and the bowels coſtive, and at times much pained. Reſpiration was ſo laborious that he could not lie down, but was under the neceſſity of being ſupported in a half-erect poſture. He was greatly emaciated, his appetite having wholly forſaken him. His countenance was ſunk, and his ſkin of a pale yellow colour, ſo that death ſeemed not very diſtant.

In this ſtate of the caſe it was uſeleſs to preſcribe any medicine, and I immediately propoſed the operation of Paracenteſis as the only means of relieving his diſtreſs, and, in ſome degree, preventing a miſerable diſſolution; to which, however, he and his friends ſtrenuouſly objected.

As I was very unwilling to leave the poor man to his fate, I agreed to give him ſome medicine, hoping that when, its inefficacy would appear, they would conſent to the operation. He was conſequently ordered a laxative and an anodyne. Theſe were repeated occaſionally, and I ſaw him pretty regularly for ten days thereafter, when the operation was conſented to, as his ſituation became daily more intolerable. I accordingly placed him in the ordinary poſture, and introduced the trocar, which readily entered, at the uſual place, in the left ſide; but, upon withdrawing the ſtillet, I was ſurpriſed that ſcarcely an ounce of fluid followed. I introduced a probe through the canula, which met with no reſiſtance, and produced no effect. Diſappointed at this want of ſucceſs, without being able to account for it, I did not well know how to keep up the ſinking ſpirits of my poor patient, who expected relief from the operation; and, as I ſtill believed the caſe dropſical, from the fluctuation and regular diſtention of the abdomen, I repeated the operation on the right ſide, but, to my mortification, with no better ſucceſs. I was now convinced of its being an encyſted caſe, and as nothing farther could be done to relieve the unfortunate man, I left him, with regret, to ſink under an incurable diſeaſe.

He died in three days thereafter, and, as the caſe was uncommon, I requeſted the liberty of examining the body, which his friends readily gave me.

Upon laying open the parietes of the abdomen, an immenſe cyſt, occupying the whole cavity, preſented and concealed the inteſtines, except a portion of the arch of the colon, which appeared above it in the epigaſtrium, and towards the left hypochondrium. On both ſides of the cyſt the wound made by the trocar appeared, and ſhowed that it had entered in the attempt to empty the belly. About a pound of fluid, which ſeemed to have eſcaped by theſe perforations, was collected within the peritoneum, to which there was a ſlight adheſion of the cyſt towards the right ileum. This great bag was diſtended to the utmoſt, and, without any irregularity of its ſurface, evidently contained a fluid readily fluctuating, and, when opened by a longitudinal inciſion was found completely filled with hydatids. The quantity was ſo great that it would have been folly to attempt enumerating them, and I therefore meaſured thirty-five Engliſh pints.

The ſize of a great proportion was much beyond what I had ever ſeen, and exceeded that of the largeſt orange. In this quantity was included the fluid which ſurrounded the hydatids, but it was ſo inconſiderable as not to cover them when carefully collected, meaſured, and put into a waſhing-tub.

The cyſt was connected to the meſentery above the ſecond lumbar vertebra by a conſiderable neck. Several of the glands of the meſentery and meſocolon were greatly enlarged and indurated, and the inteſtines were unuſually contracted, as might be ſuppoſed from the long-continued preſſure of the cyſt, the loſs of appetite, and conſequent emaciation. The liver was ſmall and puſhed upwards, and the right lobe partly ſcirrhous. The other viſcera were ſound, although ſomewhat ſmaller than uſual.

I was much gratified by the opportunity which the diſſection afforded me of aſcertaining the nature of the caſe, which, from the amazing collection of hydatids, was very ſingular, and of which I now beg leave to tranſmit this conciſe ſtatement.

Oban, 6th December, 1805.

VI.

Deſcription of the Koutam-Poulli, ſhowing, contrary to the commonly received Opinion, that it does not afford Gum-Gamboge. In a Letter to Dr J. Anderson, Madras, from Dr White, Cananore.

My Dear Sir,

My botanical purſuits having neceſſarily of late ſuffered a long ſtagnation, I have been thereby prevented from endeavouring to ſupply a variety of commiſſions and queries, relative to that department, tranſmitted to me from different quarters.

I had long ſince conſigned to a memorandum-book the following notice of an intereſting ſpecimen, but the expectation of coupling it with ſomething equally ſo has hitherto delayed the communication.

Dr Berry's deſcription of a tree which flowered in the Nopalry at Madras in 1801 ſuggeſted to me the indentity of our two trees, and that the differences may have chiefly ariſen from the youth of his ſpecimen, aided perhaps by a ſtrange ſoil and climate ;–circumſtances which, even in a ſtate of nature, I have frequently found to exert a marked influence in modifying vegetable productions.

I need not obſerve to you, that the koutam-poulli of the Hortus Malabaricus, or kour-kampoulli of Acoſta, of which I am now to treat, has hitherto been deſcribed in a manner too general or too vague to give us accurate generic and ſpecific notions of it, much leſs for enabling us to correct the concomitant error which aſſigns, for its produce of gum-gamboge, a ſubſtance entirely foreign to any quality obſervable in our tree, as will afterwards appear.

It is not improper previouſly to remark, that I am partly indebted for the ſucceſsful inveſtigation of the preſent ſubject to a little philological care firſt applied in tracing the meaning and origin of its indigenous names. Had this been earlier attended to, our inquiries would have aſſumed a more natural, and moſt likely a more ſuccefsful direction. For who would have thought of ſearching for gum-gamboge, a ſubſtance of much acrimony, and frequently of violent efficacy, when taken in ſmall quantities, in a tree whoſe mild juices produce a fruit of ſuch univerſal uſe in food, as to have originally impoſed the eminently appropriate names by which it has been known to the natives from time immemorial. Rumphius, more than 100 years back, drew the attention of botaniſts to this ſubject, and firſt ſuggeſted the great probability of miſtake in the affirmation of gum-gamboge being the produce of the koutam, or kourkam-poulli, of Malabar; but, with that diffidence inſeparable from the true ſpirit of obſervation, he would not hazard a poſitive opinion, ſeeing the chance of deception from a dried ſpecimen, and that brought from a great diſtance.

My repeated opportunities of actual and careful inſpection of the tree upon the ſpot, though entitled to little conſideration, may contribute to render what follows an object of intereſt to you, who are ſo capable of appreciating the nature of all ſuch attempts.

I had made many and vain inquiries for the meaning of khoddam, or coddam, (for it is written both ways, according to European caprice), till, on inſpecting ſome error in orthography or enunciation, and ſubſtituting mutes of analogous powers, I found that koutam ſignifies, all over Malabar, a made-up or mixed diſh of victuals; and koutam-poulli, the ingredient of the ſame. Kourkam-poulli is a name alſo perfectly appropriate, but rather of a more general meaning, as it ſignifies the acid ingredient of any kind of food, literally the eating or meal acid. The Malabar Marum, ſignifying tree in general, when added, completes the indigenous appellative.

Botanical Deſcription of the Koutam-Poulli, or Kourkam-Poulli, of the Malabar Coaſt.

Claſſis Polyandria. Ordo mono-gynia;—of the natural order of pomaceæ.

Calyx.—Four parted diviſions, fleſhy and gibbous, with ſquamous edges, one oppoſite pair ſhort orbicular; the longer oblong and rigid, all placed oppoſite to the interſtices of the corolla, and adhering to it beneath.—Permanent.

Corolla.—Four petals longer and larger than the calyx, erect, oblong, coloured, and fleſhy, with a ſquamous contour, ſubequal, plane outwardly, gibbous internally, and thickening to a broad unguis, which is cloſely glued to the receptacle, and the baſe of the germen.

Stamina.—Numerous filaments, ſhort and fleſhy, united below, and frequently embracing cloſely the hollow diviſions of the germen. Anthers large, ſtriated, and incumbent, of an irregular ſhape.

Piſtillum.—Germen globular, with from ſeven to nine (moſt commonly eight) furrows, and as many rounded and ſubequal vertical ſegments; no ſtyle, ſtigma plane expanded, radiating into obtuſe angles or lobes.—Permanent.

Pericarpium.—An apple, various in ſize, from half an inch to one and a half in diameter; ſpherical, ſometimes approaching to an oval ſhape; ſegments more or leſs equal, from ſeven to nine (moſt commonly eight) with as many deep furrows between each ſegment, encloſes in a pulpy membrane a ſolid creſcent formed ſeed, in ſhape and ſize correſponding to the ſegments, and, of courſe, tapering inwardly to unite their edges at the axis of the pome.

This tree, in its natural ſoil and climate, is one of the moſt ſtately and beautiful productions of the foreſt on the Ghauts, which ſeems its moſt congenial ſituation: it ſhoots up to the height of 66 or 80 feet, with a ſtem naked half-way, and then thickly beſet with branches and foliage. But it ſeldom exceeds half this ſize on the ſea coaſt.

Trunk.—Perpendicular, round, and ſlightly tapering; bark uniform and ſmooth, of a dark-brown colour externally, but of a more vivid brown next the parenchyma, and of a pale yellow, cloſe to the wood, from which it very eaſily peels off; on inciſion there exudes a light yellow juice in moderate quantity, which, by expoſure to the air, ſpeedily loſes its bright colour, concreting into a fuſcous, tenacious maſs of no taſte, and not ſoluble in the ſaliva.

Branches.—Proceeding regularly from ſucceſſive points round the ſtem as it riſes; ſmall branches in oppoſite pairs, croſs-armed, or the plane of each pair regularly croſſing the ſucceeding one at rectangles.

Leaves.—Petioled, iſſuing in pairs; entire, acutely oblong, rigid, ſmooth, and finely veined, of a ſhining and rather light green; their taſte acid.

Flowers.—Axillary, from the ſmall lateral and terminal twigs; ſeſſile moſt commonly in ſmall cluſters, from two to four, with minute fleſhy bracts, generally ſingle.

The ſeaſon of infloreſcence is March, or the beginning of April. The fruit ripens in May, or the commencement of June, juſt before the periodical rains. The apple, as above hinted, contains an abundant and pleaſant acid both in its pulp and membranes.

I have not learned that the wood is applied to any mechanical or domeſtic purpoſes. The ripe fruit, diſcoverable by its dropping, receives a very ſimple management to fit it for the market, as, after ſprinkling them (the large apples being previouſly ſplit open) with a little ſalt, they are ſpread out to dry in the ſun, and, when this is finiſhed, they are laid up in mat bags.

Their great uſe in curries, and other ſimple diſhes of the natives, renders them a conſiderable article of trade from place to place all over India. I have frequently ſeen them imported on the Malay coaſt, and the adjacent iſlands. Southern Malabar, the kingdom of Travancore, and Ceylon, furniſh this extenſive demand.

I have not ſeen the koutam-poulli in the interior of the peninſula, and it is even very rare in Kanara. The natives of this coaſt do not cultivate it with any attention; now and then we meet with a ſolitary individual near a riot's * habitation; he and his neighbours are hereby ſupplied with as much as their families can conſume, and they look no farther. To make up for this, moſt part of the mountains of the Ghauts produce the tree in the greateſt perfection, and the fruit in an abundance ſufficient for any demand.

I have thus finiſhed as circumſtantial a detail of the koutam (erroneouſly koddam or coddam, as I have found from careful inquiry among the beſt-informed natives) poulli-marum of the Hortus Malabaricus, or kourkam-poulli (erroneouſly ſpelled and pronounced carka) of Acoſta, as my obſervations have enabled me to make; and I think that, in future, our ideas will be fixed on this point.

Indeed, it ſurpriſes me that even any confuſion ſhould have exiſted relative to the two trees, cambogia and koutam-poulli. It could ſcarcely have originated with the natives, as they have not ſo much as a name for the former, and its produce, the gum-gamboge, is not to be had in any Malabar bazar;—a clear proof that they are ignorant of its qualities, and that they never made any application of them in their arts or medicine.

Cananore, 4th January 1805.

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* A villager, or country man.

THE INQUIRER, No. V.

Obſervations on Secondary Hemorrhage, and on the Ligature of Arteries after Amputation, and other Operations.

I HAVE always been of opinion, that the quicker we produce adheſive inflammation, by which we look forward in amputation to the union of divided parts, the more are we likely to obviate ſecondary hemorrhage. As I conſider this poſition undeniable, even where there may be an exiſting diſpoſition in the veſſels to diſeaſe, it may be productive of ſome good to inquire how far the methods uſually taken in this important operation coincide with the views of the practitioner, who has in contemplation healing by the firſt intention.

The general practice in amputation is to ſecure the blood-veſſels by very broad ligatures, not inferior in their dimenſions to ſome kinds of tape; and it is not unuſual to ſee the femoral artery taken up by ſuch a ligature, including in the courſe of the needle a conſiderable quantity of the contiguous muſcular and other parts.

The ſecurity of blood-veſſels of any importance we are ſtill under the neceſſity of truſting to ligature, which is an introduction of foreign matter into a wound intended to be healed by the adheſive proceſs, the effects of which are undoubtedly at variance with the intentions of the ſurgeon; and on their number, ſize, and diſtribution in the wound, depends, in a great degree, his ſucceſs or failure.

Independent of the obſtacles which ligatures muſt ever place againſt healing by the firſt intention, particularly when of ſuch immenſe dimenſions, and where they are numerous, which often happens, the mode of arranging them uſually adopted by the profeſſion has alſo a tendency to counteract the adheſive efforts of nature, and performs an important part in eſtabliſhing the ſuppurative proceſs in almoſt every part of the wound. The ſurgeon, when the blood-veſſels are ſecured, generally draws the ligatures out at the ſuperior and inferior parts of the wound, ſo that the whole living and recently divided part of the ſtump becomes covered by a foreign body; in fact, he eſtabliſhes a ſeton where he has in view healing by the firſt intention,—a meaſure which muſt conſtitute a decided obſtacle to the accompliſhment of his deſigns; and, beſides the diſadvantages to the healing of the wound, their removal, when it can be attempted with ſafety, becomes more difficult from the point acted on, and the extremity of the veſſels ſecured neceſſarily forming an angle, the ligature is forced, where there is reſiſtance, into the contiguous parts, giving riſe at times to pretty conſiderable diſcharges of blood.

The above is a ſhort, but, I believe, a correct view of ſome imperfections in the preſent mode of performing amputation, to which it is the object of this eſſay to call the attention of ſurgeons, by pointing out the impoſſibility of healing by the firſt intention under ſuch arrangements, and to endeavour to remove ſome of the difficulties which obſtruct the adheſive efforts of nature, by a ſimple, ſafe, and, I believe, eaſily practicable deviation from the eſtabliſhed method.

Where the habit and condition of the patient has been favourable to operation, I have moſt unexpectedly ſeen the ſuppurative proceſs interfere with the exertions of men of the higheſt eminence; matter form, the ſtump in ſome inſtances open; a diſpoſition to exfoliation follow, the perioſteum quit its adheſion to the bone; the muſcles retract; the condition of the wound change, and hectic fever ſucceed, from renewed irritation and diſcharge, terminating in the death of the patient; and to thoſe unfavourable changes the improper ſize of ligatures, joined to their equally improper diſtribution, contributed a moſt important and conſpicuous part.

Let any one, to feel the force of the preceding obſervation, recollect how ſuddenly the diſcharge of pus ceaſes on the removal of the ligatures, and how great it is where even the ſmalleſt of them remains. The irritation and ſloughing, alſo, ariſing from the natural removal of a piece of carious bone, offers a ſtrong leſſon in favour of the propriety of diminiſhing every ſource of irritation as far as poſſible, and decidedly points out large ligatures as the probable cauſe of ſecondary hemorrhage in ſome inſtances, where, under an oppoſite treatment, it would not have taken place.

Although I have, in my operations, been as ſucceſsful as many, ſtill the ſtrong impreſſion made on my mind by my failures, has never been effaced by that ſucceſs, and has excited in me a deſire to obviate their recurrence. To this feeling of regard for my fellow-creatures am I to trace the deviations which I am about to notice. As the ſubject is of importance, and thus early produced for the purpoſe of exciting attention and gaining information, it will, I hope, be treated with the ſpirit of candid inquiry: I ſhall therefore proceed to detail my late practice and ideas of this important part of ſurgery.

In place of ſecuring the blood-veſſels and diſtributing the ligatures in the manner followed in amputation, I have, in one caſe, above the knee, tied every veſſel from the femoral artery downwards, including nothing, if poſſible, but the artery, with a ſingle ſilk thread, and, when this was done, I afterwards, as near to the knot as poſſible, took off one half of each ligature, ſo that the foreign matter introduced was a mere trifle, compared with what I had been accuſtomed to ſee. There is conſiderable diſadvantage attending the including in the ligature on the artery much of the contiguous parts, as it may interfere with the contractile powers of the arteries exerting themſelves to their immediate and full extent. On cloſing the wound by adheſive ſtraps, inſtead of the uſual arrangements of the ligatures from the ſuperior and inferior parts, I drew each ligature out as nearly as poſſible on a line with the veſſels ſecured; and, provided the edge of the adheſive ſtrap, when applied to bring the oppoſite ſides of the wound into contact, urged the ligature from its direct courſe, it was opened carefully with a pair of ſciſſars in the direction of the wound, ſo that the ligature might be allowed to paſs out on a line with the veſſel it ſecured, by drawing it or them gently into this diviſion of the ſtrap. The next ſtrap was applied ſo as more than to cover and ſupport the extent of diviſion in the preceding one, and, provided it interfered with the direct courſe of the ligatures from their ſource (the veſſels ſecured), the ſame ſteps were taken. In this manner the wound was cloſed, and every ligature drawn out, as nearly as poſſible, on a line with the point to which it was tied; and, although a man of 60, and much weakened by previous diſeaſe, the wound healed with the rapidity of hare-lip. The parts were united in the courſe of ſix days, and, with the exception of the points of ligature, there was no purulent diſcharge. What can prove a greater ſecurity againſt ſecondary hemorrhage than ſuch a union of parts? The great objections that have been ſtated to this mode of ſecuring the blood-veſſels have been founded on the ideas of cutting or injuring them ſo much as to give riſe to ſecondary hemorrhage. This mode of thinking and reaſoning, although plauſible, does not appear to me to be well-founded. A large ligature excites the proceſs of inflammation and ulceration throughout its whole courſe, and much beyond itſelf, in the direction of the artery towards the body. The parts, in place of coaleſcing and approaching each other, which is of material conſequence in favouring the ſupport of the divided arteries, recede very conſiderably on all ſides, ſo that the extremities of the arteries remain unſupported, and, as it were, floating in a ſinus, with ligatures, moſt unneceſſarily large, attached to them, capable of exciting, by undue irritation, exceſſive inflammation in the very ſubſtance of the artery itſelf; a change of action from that of the adheſive diſpoſition, highly dangerous, in my opinion, as being favourable to ſecondary hemorrhage, by its tendency to excite the ſloughing proceſs. The mode of ligature which I have lately tried will obviate ſuch inconvenience, as the parts will be found much more diſpoſed to general union from the cauſe of irritation and inflammation being ſo much diminiſhed, and will prove one great means of obviating, where practicable, in place of promoting ſecondary hemorrhage. Indeed, I really think we are juſtified in aſcribing hemorrhage after amputations, as well as ſome other operations, to the great volume of ligature, the very means adopted to obviate ſuch an occurrence exciting ſuppuration and ſloughing; for it is but fair to conclude, where undue action does follow, that the veſſels ſecured by ſuch ligatures will be more likely to aſſume the ulcerative and ſloughing form of action than others. In the dead body, where the key-ſtone of the fabric is gone, and reſiſtance conſequently become leſs than in the living, you cannot, by a ſingle thread, or any ligature compoſed of ſilk threads, fairly exerted, divide the external coat of the artery, even if you introduce a hard and round ſubſtance into its cavity capable of occupying its diameter. Here certainly, as obſerved, there is leſs reſiſtance than in the living body, where the powers of reparation are coeval with the injury inflicted; and the nature of the ligature, when the change it produces is duly conſidered, will certainly have its influence in retarding or accelerating theſe powers. A broad ligature bruiſes more extenſively than the ſmall, and will conſequently be more likely to produce the diſpoſition to ſloughing. The ſingle thread offers ſomething like the delicate inciſed wound, with its diſpoſition to unite; the broad ligature preſents ſomething like the wound, attended with contuſion and irritation, which ſeldom fail to preſent difficulties to the exertion of the ſurgeon.

The changes which ligatures induce, joined to the natural powers of the artery in repreſſing hemorrhage, have been ingeniouſly and ably treated by Dr Jones, and are worthy of the attention of every medical man. The operation which I have deſcribed was performed before ſeeing or knowing any thing of that valuable tract.

The removal of the one half of the ligature requires perfect ſteadineſs, and a little time; but the time occupied by this part of the operation, as far as my obſervation yet goes, is not to be admitted for a moment into calculation, when contraſted with its advantages. But, if even both parts of the ligature are allowed to remain, this mode of ſecuring the arteries would ſtill have a decided ſuperiority over the general practice. J. D.

VIII.

Caſe of Teeth and Hairs found in the right Ovarium. By JAMES ANDERSON, Fellow of the Royal College of Surgeons, Edinburgh.

MAY 18. 1804, I was called to viſit Mrs A——, immediately after delivery. She was upwards of 30 years of age, much emaciated, and had a hectic appearance, with a pulſe rather quick and feeble. I was informed by the midwife who attended her that the placenta had been expelled eaſily by natural efforts, but ſhe was alarmed becauſe the abdomen, although much ſofter, was ſtill as bulky as that of a woman in the laſt months of geſtation. Having aſcertained that the bulk had no connexion with any thing contained in the uterus itſelf, I only gave directions that ſhe ſhould be bound up in the uſual manner.

She was delivered of her firſt child, a boy, on the 15th of June 1795, at which time nothing uncommon occurred; her ſecond, a daughter, was born on the 23d December 1797, when ſhe was long and very ill, both at and for two or three months after delivery, and always complained of a ſevere pain in her right ſide. In the third month of that pregnancy ſhe was attacked with uterine hemorrhage from over-exertion, which, however, ſubſided, and ſhe was delivered at the ordinary time. The placenta was partially removed by the midwife, and the remaining part was propelled naturally within 24 hours; but, from that time, her complexion became pallid, and ſhe never has recovered her natural colour. She was afterwards delivered of a ſon, 17th July 1800, and of another ſon on the 13th June 1802. During both theſe pregnancies nothing particular occurred. About the month of Auguſt 1803, at which time ſhe conceived her laſt child, a daughter, ſhe complained much of a pain in the ſame ſide, ſimilar to what ſhe felt in her ſecond child, which became particularly ſevere from the time ſhe was half gone till delivery.

For two months after I firſt ſaw her, the hectic ſymptoms continuing to increaſe along with her bulk, which had now induced conſiderable tenſion of the abdomen, and the preſence of a fluid having been diſtinctly aſcertained, it was deemed adviſeable to make an attempt to relieve her by the operation of paracenteſis. The fluid drawn off weighed four pounds, ten ounces, and had a purulent appearance from the commencement to the concluſion of the diſcharge, which ceaſed ſpontaneouſly. By its evacuation the ſize of the abdomen was diminiſhed, but in a trifling degree, and ſhe continued very unwell, for a fortnight after the operation, from pains in the abdomen, with occaſional diarrhœa, and an increaſe of hectic ſymptoms. She afterwards got ſo far well as to be able to walk out for ſome months, although the bulk was again increaſing.

January 1805. The ſwelling had increaſed to ſuch an extent, accompanied by painful tenſion, that I was again ſolicited to tap her; but, upon examination, I obſerved a ſlight inflammation and prominence of the umbilicus, to which I ordered poultices to be applied.

In the month of February an abſceſs burſt at the umbilicus, from which a very conſiderable quantity of matter, amounting, upon an average, to half a pound per day, continued to be diſcharged till within a few days of her death, which happened on the 16th September 1805. During this time the abdomen gradually diminiſhed in ſize, and with it the loſs of muſcular fleſh kept pace, down to the loweſt degree of emaciation. The matter was thin, browniſh-coloured, and ſo intolerably fetid that it was neceſſary to apply epithems of charcoal powder, and to uſe every poſſible means to correct it. The diſcharge was moſt readily effected, and indeed took place in a ſtream, as from the point of a ſyringe, when the patient lay upon her back, with her ſhoulders lower than her loins, and applying her claſped hands to the inferior part of the abdomen, drew them up towards the umbilicus.

In the courſe of a few days after the abſceſs burſt, my patient ſhowed me a dozen or two of hairs, from two to four inches long, which had paſſed through the wound, and, from time to time, other parcels of hairs were diſcharged.

APPEARANCES ON DISSECTION.

BEFORE opening the abdomen, a probe was introduced into the umbilicus to aſcertain the direction of the ſinus, which ran towards the right ſide to a conſiderable depth. On opening the abdomen, the right ovarium was found adhering to the peritoneum and umbilicus. It was very much enlarged in ſize, but collapſed, containing only a ſmall quantity of a greyiſh coloured matter, of a granulated appearance, and unctuous to the touch; a very few hairs, and two teeth of the firſt ſet, all looſe within its cavity; there was alſo another, but apparently of the ſecond ſet, firmly fixed in the ſide of the ovarium itſelf. The left ovarium was found. And the uterus, although healthy in its appearance, was as ſmall as it uſually is in its virgin ſtate.

Although the circumſtance of hairs and teeth being found in the ovarium has been repeatedly deſcribed, yet it occurs ſo rarely, that Mr Fyfe, who was ſo obliging as to conduct the diſſection, has only met with one example beſide the preſent; of which there is an excellent preparation in Dr Monro's muſeum. From the ſmall ſize of the uterus, it was ſuppoſed to have occurred in a woman who had never been impregnated; but this ſuppoſition is rendered extremely doubtful by the preſent diſſection. It is remarkable, that wherever teeth are found in the ovarium, hairs are alſo preſent, but unlike other hairs they have no bulbs, and they are never fixed in the ſides of the uterus, as the teeth commonly are. The intolerably fetid ſmell, which always accompanies the preſence of hairs, is ſo peculiar as almoſt to indicate their preſence, and it adheres obſtinately both to the hairs themſelves, and every thing which touches them.

From the circumſtances of the caſe, it is not improbable that theſe teeth and hairs were the remains of a twin conception with the ſecond child: If this conjecture be correct, all the ſubſequent impregnations muſt have occurred in the left ovarium; and as the children born were of different ſexes, it completely refutes the abſurd opinion once entertained, that the right produced only males and the left only females.

IX.

The Efficacy of Inoculated Small-Pox in promoting the Population of Great Britain. By R. GILLUM, M. D. Bath.

THE prevention of plague by inoculated ſmall-pox reſts on good authority, and was firſt ſuggeſted in a late publication, viz. Arguments, &c. inſcribed to the Right Hon. Lord Hawkeſbury, by Dr Gillum. This ſuperior advantage is conciſely proved by the London bills of mortality: in a period of about 73 ſucceſſive years, the plague raged in the metropolis no leſs than ſix times, including the laſt memorable plague of 1665. Since inoculation, plague has never once appeared.

It is an obſervation atteſted by long experience, that diſeaſes of a very oppoſite kind or ſtate ſeldom, perhaps never, prevail together, nor occur at the ſame time in an individual. Nature, even in her diſordered operations, obſerves a degree of ſimplicity. Many paſſages in Sydenham confirm this remark. When the laſt plague was at its height, ſmall-pox appears to have been extinct, and neither could gain an aſcendancy while intermittents prevailed.

The eſſential character of a reigning diſtemper often depends on the one which immediately preceded: thus, a dryneſs of the ſkin was a conſtant attendant, till profuſe perſpiration, and eruption of puſtules, ſucceeded. A remarkable difference is obſervable in diſeaſes following cloſe on each other; for example, ſoon after the *fatal* plague of 1665, *mild* ſmall-pox was general, and leſs fatal than any kind witneſſed by Sydenham in the courſe of his whole practice. Did not plague render the ſmall-pox mild, by removing the dry ſtate of the ſkin, thus allowing the virulence prevalent in the ſyſtem to be diſcharged?

To account for the exiſtence of plague in 1665, it is neceſſary to know the previous diſtempers. Before the plague, intermittents prevailed for ſeveral years, attended with uncommon dryneſs of the ſkin, and great loſs of ſtrength. It is ſingular, in all their variety, no extraordinary evacuation of any kind was general. Such a ſtate of the body muſt conſequently be productive of lingering and obſtinate complaints: accordingly perſons attacked in the ſpring, were liable to a relapſe in autumn. Dropſy, rickets, and madneſs, were, in ſome inſtances, the ſequel. The attacks of ſuch intermittents were moſtly ineffectual efforts; conſequently they weakened the body by their repetition, and probably fixed the cauſe of theſe complaints. Noxious matter, not duly carried off, acquired acrimony; the heat of the body, to which it was continually ſubjected through a lingering diſtemper, augmented its putrid, and engendered its virulent qualities; at length this noxious matter of itſelf, or united with a contagion, was diſlodged, at a certain ſeaſon of the year, from the inert parts, where it had gradually collected, and paſſed ſuddenly into more ſenſible and vital parts of the body. Then commenced the plague of 1665, which, by improper treatment, want of nouriſhment, dread and horror, increaſed; not ceaſing till it proved fatal to 100,000 perſons (this account is confirmed by the ſymptoms of plague and the diſſection of dead bodies).

Small-pox was partial ſome years before this plague; the dry ſkin, the great loſs of ſtrength, were adverſe to its appearance, and the renewal of intermittents never failed to put a ſtop to its continuance. So impoveriſhed was the ſyſtem, that many perſons ſunk under the diſtinct ſmall-pox. In ſuch caſes the perſpiration, never conſiderable, ſtopped; no remedies then in uſe could reſtore it, and the patients died in a few hours. Plague was produced, in a great meaſure, by the retention of matter which the ſyſtem had not power to diſcharge by this *ſuppreſſed* ſmall-pox.

The reverſe is mild ſmall-pox; for it is a fact, that no ſpecies diſcharges noxious matter ſo completely from the body, though the puſtules are few. Upon this depends its power of preventing plague, exemplified in this effect of inoculation. Inoculation has ſupplied mild ſmall-pox, and conſequently ſaved to the country the multitude of its inhabitants formerly deſtroyed by the plague.

Hence, had inoculation been known and ſeaſonably employed, the plague of London in 1665 might have been prevented, and the lives of 100,000 of its inhabitants ſaved, excluſive of their offspring,

> "Et nati natorum, et qui naſcentur ab illis."

The liberal and diſcerning part of the faculty ſurely muſt, upon reflection, admit that, before a *new diſeaſe* is to be propagated among mankind, it is neceſſary to know the tendency and connexion between exiſtent diſeaſes.

Population has been immenſely increaſed by inoculation. Inoculation has long diffuſed happineſs among mankind by the ſecurity it has afforded. Where is the family that will not acknowledge this truth?

Parents, to procure their offspring the ſecurity themſelves enjoy, muſt employ inoculation. No viſionary ſcheme ſhould be admitted to interfere with and defeat the performance of this important duty.

It is a duty every member of ſociety owes to his country and poſterity to promote the inoculation of ſmall-pox, decidedly oppoſing any attempt to deprive mankind of this invaluable GIFT OF PROVIDENCE.

Bath, October.

NOTE BY THE EDITORS.

Though we have given a place to this ſingular ſpeculation of Dr Gillum, we are very far from adopting his ſentiments, or participating his fears: On the contrary, we are quite unable to comprehend how the few facts collected from Sydenham can have ſuggeſted that relation between ſmall-pox and plague which is here inſiſted on. When a great city is nearly depopulated by an exiſting plague, while the ordinary intercourſe of ſociety is ſuſpended, we are not ſurpriſed at the diſappearance of ſmall-pox. If, after the extinction of the plague of 1665, Sydenham has remarked, that the ſmall-pox which ſucceeded was, though very general, of a genuine and kindly ſort, deſtroying few in proportion to the multitudes attacked, other circumſtances than the antecedency of the plague might be aſſigned as more natural cauſes, becauſe more conſtant in their operation. For our own part, we are ſatisfied that the diſappearance of the plague is to be aſcribed to the extenſion and improvement of the metropolis after its deſtruction by fire in 1666, to a better police, and to the laws of quarantine, but not to the inoculation of ſmall-pox, a practice not introduced till near a century after the laſt viſitation of plague in this country. Nor has the plague ceaſed to devaſtate that very country whence we received the firſt leſſon of inoculation. Inoculation, it is true, has long diffuſed happineſs among mankind by the ſecurity it has afforded; but who, before Dr Gillum, ever imagined that the ſecurity was againſt other dangers than thoſe ariſing from a malignant ſmall-pox? A mild diſeaſe was all the ſecurity expected, and not always obtained. The cow-pock gives us a higher ſecurity; a ſecurity againſt the ſmall-pox itſelf. And while we continue attentive to the rules of medical police, and to the execution of our quarantine laws, we may conſider ourſelves equally ſecure againſt the plague.

X.

Eſſay on the External Uſe of Oil. By William Hunter, A. M. Maſter of the Aſiatic Society of Calcutta, and Surgeon of the Marine Eſtabliſhment, Bengal. *

The external application of oil to the human body is of high antiquity, and it was directed to various purpoſes. Of theſe, the moſt ancient, of which we have any account, was for the conſecration of kings, of prieſts, and even of inanimate things ſet apart for holy uſes (1). The practice appears to have been peculiar to the Hebrews, and from them handed down to Chriſtian princes. It ſeems intended to typify, by its ſoothing qualities, the benign influence of divine grace (2). Of nearly equal antiquity was its uſe, among this people, as an article of luxury (3).

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(1) 1 Samuel, x. 1. Exod. xxviii. 41. xxix. 7. xxx. 23—25. xxxvii. 29. Levit. viii. 12. Pſal. cxxxiii. 2. Gen. xxviii. 18. xxxv. 14. The ſame word, שמן, tranſlated ointment, in Pſalm cxxxiii. 2. is rendered oil in Exod. xxix. 7. And, in fact, the holy ointment, Exod. xxx. 23.

* Extracted from Mr Hunter's valuable Eſſay on the diſeaſes incident to Laſcars in long voyages, of the other parts of which an analyſis will be found in the preſent Number.

Among the Greeks it was uſed for this purpoſe, with the addition of perfumes, as early as the Trojan war, or at leaſt before the days of Homer. Thus we find Juno anointing her body with perfumed oil, before ſhe adorned herſelf, to faſcinate the mind of her huſband (4). It was alſo conſidered as neceſſary to prepare the body for violent exerciſe, or to relieve it from the fatigue which was the conſequence of it (5). Hence, in

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23—25, was nothing more than a perfumed oil. The ſpices were pounded ſeparately, then mixed and infuſed in water. The water, thus impregnated, was mixed with oil, which was boiled till the water exhaled. (Maimon. Patrick Comment. on Exodus xxx. 25. Witzii Miſcel. Sacr. l. ii. Diſc. 2. § 56.) In this proceſs, we ſee at leaſt a practical knowledge of elective attractions. Had the mere infuſion of ſpices been expoſed to the heat of boiling water, the eſſential oils would have been volatilized along with the water, and the fragrance entirely diſſipated. But the addition of the fixed oil, by its chemical attraction, retains the eſſential ones, and the watery parts only ariſe in vapour.

(2) The reader may ſee the ſymbolical uſe of oil treated of at large in a curious treatiſe on General Philoſophy, by Theophilus Gale, publiſhed at London in 1676. L. iii. c. 2. ſect. 7. § 5. page 315.

(3) Deut. xxviii. 40. &c. This, among other indulgences, was forbidden to the Jews on the days of expiation; which is alluded to by our Saviour in Matth. vi. 17. Surenhuyſen's Miſchna. vol. ii. page 252.

(4) ——————————αλειψατο δὲ λὶπ' ἐλαίῳ
Αμβροσιῷ, ἑδανῷ, το ρα οἱ τεθυωμένον ηεν. Il. ξ 171.
——————————, and round her body pours
Soft oils of fragrance, and ambroſial ſhowers.
Pope, xiv. 197.

where the reader will find an intereſting note on the antiquity of the practice. See alſo Potter's Antiquities, l. iv. c. 19. and Athenæus, l. xv.

(5) *Μετὰ δὲ τȣ̃το ἐλαίου γένεσιν, πόνων ἀρωγήν.*—Plato Menex. 238.

Communia deinde omnibus ſunt poſt fatigationem cibum ſumpturis, ubi paulum ambulaverint, ſi balneum non eſt, calido loco, vel in ſole vel ad ignem ungi, atque ſudare: ſi eſt, ante omnia in tepidario reſidere; deinde, ubi paulum conquieverunt, intrare, et deſcendere in ſolium;

in every gymnaſium, there was an apartment called *elæotheſium*, *alipterion* or *unctarium*, appointed for the unctions which either preceded or followed the uſe of the bath, wreſtlings, &c. (6). This application was thought to preſerve a due moiſture of the body, and ſuppleneſs of the muſcular fibre (7), and by ſuch operation to conduce towards the prolongation of life (8).

At

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folium; tum multo oleo ungi, leniterque perfricari. Celſus, l. i. c. 3.

Si nimium alicui fatigato pene febris eſt, huic abunde eſt, loco tepido demittere ſe inguinibus tenus in aquam calidam, cui paulum olei ſit adjectum: deinde totum quidem corpus, maxime tamen eas partes quæ in aqua fuerunt leniter perfricare ex oleo, cui vinum et paulum contriti ſalis ſint adjectum.—Ibid.

Ex iis [arboribus] recreans membra olei liquor, vireſque potus vini. Plin. Nat. Hiſt. l. xii. c. 1.

[Axungia] prodeſt et confricatis membris; itinerumque laſſitudines et fatigationes levat. Id. l. xxviii. c. 9.

Oleum quod ex maturis olivis exprimitur, ſalis expers, ætate medium, moderate candidum eſt, lenit, omniumque maxime humectat et emollit, laſſitudinis optimum remedium, et ob id Græcis *Acopum* appellatum: corpus ad obeunda munera promptius alacriuſque reddit. Fernelius. Method. Med. l. vi. c. 4.

It was joined, for this purpoſe, with the affuſion of warm water. Hom. Odyſ. x. 306—364.

(6) Encyclop. Brit. vol. viii. page 250. The Athletæ were anointed with a glutinous ointment called *Ceroma*.—Martial, vii. 31. 9. iv. 4. and 19. xi. 48. Juven. vi. 245. Adam's Rom. Antiq.

(7) Ἀλουσίη ξεραίνει, καταναλισκομένου τοῦ ὑγροῦ, ἀσαύλως δὲ καὶ ἡ ἀναλειφὴ. λίπη δὲ θερμαίνει καὶ ὑγραίνει, καὶ μαλάσσει. Hippoc. de vict. rat. l. ii. page 362. ed Fœs.

Τρίψις ἐλαίου σὺν ὕδατι μαλάσσει, καὶ οὐ δεινῶς ἐᾷ διαθερμαίνεσθαι. Ibid. page 364.

Omni autem oleo, mollitur corpus, vigorem et robur accipit. Plin. l. xxiii. c. 4.

(8) Duo ſunt liquores, corporibus humanis gratiſſimi; intus vini, foris olei, arborum e genere ambo præcipui, ſed olei neceſſarius. Plin. l. xiv. c. 22.

This alludes to the following ſtory: Centeſimum annum excedentem, eum [Pollionem Romulum] Divus Auguſtus hoſpes interrogavit, quanam maxime ratione vigorem illum animi corporiſque cuſtodiſſet. At ille reſpondit, intus mulſo, foris oleo. Id. l. xxii. c. 24.

The commentator on this paſſage remarks, Democritus rogatus πῶς ἂν ἄνοσοι καὶ μακραίωνες γίγνοιντο οἱ ἄνθρωποι, intus vino, foris oleo reſpondit; eadem propemodum ſententia qua Pollio. Vid. Rhodigin.

At length, from obſerving how conducive gymnaſtic exerciſes, of which the bath and unctions formed an eſſential part, were to the preſervation of health, one Herodicus, who was born a little prior to Hippocrates, but lived contemporary with him, and was maſter of a gymnaſium, as well as a phyſician, firſt applied them expreſsly to the Hygieine, and to the cure of diſeaſes; whence he is eſteemed the inventor of gymnaſtic medicine (9). The books on regimen, commonly aſcribed to Hippocrates, contain ſeveral precepts regarding unction. On one of its properties there ſeems to be ſome diſcordancy between the different texts. In moſt of them it is alleged to warm the body, and fortify it againſt the influence of external cold. Thus, he adviſes thoſe of a temperament between the ſanguine and phlegmatic, but inclining moſt towards the latter (10), to anoint rather than waſh their bodies (11). And, towards winter, he recommends the body to be prepared for gymnaſtic exerciſes by unction; whereas, in ſummer, he directs that it ſhould rather be covered with duſt (12). The ſame ſentiment is repeated by Pliny (13). This effect was eſteemed ſtronger

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gin. cap. et l. 6. Athen. 2. Alii reſpondiſſe ferunt, intus melle, foris oleo.

Lord Bacon tells a ſimilar ſtory of one Joannes de Temporibus, who was ſaid to have attained the extraordinary age of three hundred years. Hiſt. Vitæ et Mortis Super. excl. aëris. 13. In the ſame place, he quotes the examples of ſeveral nations remarkable for longevity, who uſe this practice.

Profeſſor Hufeland reckons, among the means of attaining longevity, frequent friction of the whole ſkin; for which ſweet-ſcented and ſtrong ointments may be employed with great advantage, in order to leſſen the rigidity of the ſkin, and to preſerve it in a ſtate of ſoftneſs.—Art of prolonging life, vol. ii. p. 324.

(9) Plutarch ex Platone, libro de iis qui ſero a numine puniuntur. Encyclopedie ſur le mot *Gymnaſtique Medicinale*.

(10) This I take to be the meaning of the following deſcription: Ἐι δὲ πυρος τȣ̃ εἰλικρινεστάτου και ὕδατος συγκρησιν λάβοι ἐνδεέστερον δὲ το πυρ ἔη του ὕδατος ὀλίγον. De vict. rat. l. i. page 351.

(11) Χρίεσθαι δὲ ξυμφορώτερον ἢ λουεσθαι. Ibid.

(12) Προσαγοντα προς τον χειμωνα - - - - - χρίεσθαι - - - - - ἐν ἱματίῳ προσκινησαντα τῇ τε τρίψει, καὶ τῇ πάλῃ ἐν ἐλαίῳ. Ibid. l. iii. page 368. Ἐπειδὰν πλειας επιτειλῃ, - - - - τῃ τε παλῃ ἐν κονει, ὅκως ἥκιστα εκθερμαινηται. Ibid. The author here alludes to the heliacal riſing of the Pleiades, which, in the time of Hippocrates, muſt have been about the middle of May. See the diſſertations of Mr Wales, and the Biſhop of Rocheſter, annexed to Vincent's Nearchus.

(13) Oleo natura tepefacere corpus, et contra algores munire: Eidemque

ſtronger in old than in recent oil (14); which might proceed either from the diſſipation of its watery parts, or from the abſorption of oxygen. The former ſeems to have been Pliny's idea, as he adviſes to reduce freſh oil to the ſtate of old, by boiling (15). But another paſſage of Hippocrates would lead us to ſuppoſe that he, or the author of the books on diet, aſcribed to him, conceived it to poſſeſs a power of cooling the body (16). Perhaps their idea was, that it guarded the body againſt either extremity of temperature.

In a ſhort time, the external application of oil, for the cure of diſeaſes, became a diſtinct branch of the medical art, called *Jatraliptic Medicine*. It was firſt introduced, according to Pliny (17), by Prodicus, a native of Selymbria, and a diſciple of Hippocrates (18). The volumes which treat expreſsly of its precepts are loſt; but we find the anointing of the body with oil recommended, among other remedies, in various diſeaſes, as fevers (19), puſtular eruptions (20), gout (20), palſy (21), lethargy

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demque fervores capitis refrigerare. Plin. l. xv. c. 4.—Does he mean by a kind of revulſion?

(14) Vetus autem magis excalefacit corpora. Id. l. xxiii. c. 4.

(15) Si vetuſti non ſit occaſio decoquitur, ut vetuſtatem repreſentet. Ibid.

(16) Ἠμφιέσθαι δὲ χρὴ, τοῦ χειμῶνος, καθαρὰ ἱμάτια, τοῦ δὲ θέρεος, ἐλαιοπινία. Hip. de ſalubri victus ratione, page 338.

(17) Nat. Hiſt. l, xxix. c. 1.

(18) Not of *Æſculapius*, as ſtated in Encyclop. ſur le mot *Jatralipte*.

(19) Ungi enim, leniterque pertractari corpus, etiam in acutis et recentibus morbis oportet; in remiſſione tamen, et ante cibum. Celſ. l. ii. c. 14.

Utile eſt etiam [in febribus] ducere in balneum, prius demittere in ſolium, tum ungere, iterum ad ſolium redire, multaque aqua fovere inguina; interdum etiam oleum in ſolio cum aqua calida miſcere. L. iii. c. 6.

Sæpe igitur ex aquâ frigidâ, cui oleum ſit adjectum, corpus ejus (febre lenta detenti) pertractandum eſt, quoniam interdum ſic evenit, ut horror oriatur, et fiat initium quoddam novi motus; exque eo cum magis corpus incaluit, ſequatur etiam remiſſio. In his frictio quoque ex oleo et ſale ſalubris videtur. Ib. c. 9.

Perfricandæ quoque eæ partes (pro quibus metuimus in acceſſione frigoris febrilis) manibus unctis ex vetere oleo ſunt eique adjiciendum aliquid ex calefacientibus. Ibid, c. 11.

Febres cum horrore venientes, perunctis leviores facit (oleum balſaminum). Plin. N. H. l. xxiii, c. 4.

(20)

lethargy (22), tetanus (23), cholera (24), hydrophobia (25), melancholy (26), dropſy (27), profuſe ſweating (28), and pſora, (29).

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(20) [Axungia] pruritus et papulas in balneo perunctis tollit: alioque etiamnum modo podagricis prodeſt mixto oleo vetere contrito una ſarcophago lapide, &c. Id. l. xxviii. c. 9.

Lenticulam tollunt galbanum et nitrum, cum pares portiones habent, contritaque ex aceto ſunt, donec ad mellis craſſitudinem venerint. His corpus illinendum, et, interpoſitis pluribus horis, mane eluendum eſt, oleoque leviter ungendum. Celſ. l. vi. c. 5.

(21) Unctioni vero aptiſſimum eſt (in Paralyſi) vetus oleum, vel nitrum aceto et oleo mixtum. Id. l. iii. c. 27.

(22) Vetus [oleum] lethargicis magis auxiliare. Plin. l. xxxiii. c. 4.

(23) Utilius igitur eſt, cerato liquido primam cervicem perungere; deinde admovere veſicas bubulas, vel utriculos oleo calido repletos, vel ex farina calidum cataplaſma, vel piper rotundum cum ficu contuſum. Utiliſſimum tamen eſt humido ſale fovere, quod quomodo fieret, jam oſtendi. Ubi eorum aliquid factum eſt, admovere ad ignem, vel, ſi æſtas eſt, in ſole, ægrum oportet; maximeque oleo vetere; ſi id non eſt, Syriaco; ſi ne id quidem eſt, adipe quam vetuſſima, cervicem, et ſcapulas, et ſpinam perfricare. Celſ. L. iv. c. 3.

See a ſimilar practice recommended by Aretæus, de curat. morb. acut. l. i. c. 1.

(24) Si extremæ partes corporis frigent, [in Cholera] ungendæ ſunt calido oleo, cui ceræ paulum ſit adjectum. Celſ. l. iv. c. 11.

(25) Sed unicum tamen remedium eſt, nec opinantem in piſcinam, non ante ei proviſam projicere, &c. Sed aliud periculum excipit, ne infirmum corpus in aqua frigida vexatum, nervorum diſtenſio abſumat. Id ne incidat, a piſcina protinus in oleum calidum demittendus eſt. L. v. c. 27.

(26) Si nimia triſtitia eſt [in inſanientibus] - - - demiſſum corpus in aquam et oleum. Id. l. iii. c. 18.

Aretæus ſays, becauſe the habits of thoſe labouring under melancholy are of a denſe and dry nature, therefore fat ointment, with gentle friction, ſhould be uſed. De cur. morb. chron. l. i. c. 5.

(27) Quin etiam [in Hydrope vehementiore] quotidie ter quaterve opus eſt uti frictione vehementi, cum oleo et quibuſdam calefacientibus. Celſ. l. iii. c. 21.

[In Leucophlegmatia] ſi is vehementior eſt, caput velandum eſt, utendumque frictione, madefactis tantum manibus aqua, cui ſal et olei paulum ſit adjectum. Ibid.

(28) Sudorem prohibere. Id præſtat acerbum oleum, vel roſa, vel melinum, aut myrteum. Quorum aliquo corpus leniter perungendum; ceratumque ex aliquo horum tum componendum eſt. L. iii. c. 19.

Magiſque

(29). In ſurgery, it was ſuppoſed to allay irritation in thoſe who had undergone ſevere operations (30), to reſolve indurations (31), even the exuberant callus of a fractured bone (32), and to remove the pain and ſwelling attending luxations (33). Of its application to wounds we have an inſtance in ſcripture (34).

At length, with the growth of effeminacy and the corruption of manners, various refinements were introduced into the uſe of baths and of ointments. Pliny accuſes the Greeks of having converted their uſe, which formerly was moderate and ſalutary; to an article of luxury (35). Yet he thinks it was originally a Perſian invention (36). He ſays the time when the cuſtom
was

Magiſque diſcutit ſudores [nempe vetus oleum]. Plin. l. xxxiii. c. 4.

(29) Oleum inſignem habet uſum in medicina; ἔλαιον τῆς ἀγριελαίας *ſylveſtris olivæ oleum*, deferente Dioſcor. l. i. c. 119. lepras et impetigines ſanat, in doloribus capitis utiliter pro roſaceo ſubſtituitur, ſudores illitu arcet, defluentes capillos cohibet, ulcera manantia, ſcabiemque abſtergit. Gale, Philoſ. Gener. p. 314.

Hinc adverſum flumen ſubiit claſſis, et altero die appulſa eſt haud procul lacu ſalſo, cujus ignota natura pleroſque decepit, temere ingreſſos aquam. Quippe ſcabies corpora invaſit, et contagium morbi etiam in alios vulgatum eſt. Oleum remedio fuit. Quint. Curtius, l. ix. c. 10.

Arrian ſays, the lake was formed either by the overflowing of the river, or the influx of water from the neighbouring country. Being a mixture of ſalt and freſh water, it was eminently liable to putrefaction. See Sir John Pringle's Experiments, Paper iii. Exp. 25. It would thus furniſh a nidus, favourable to the generation of animalcules, which might cauſe this diſeaſe. They would be communicated by contact from one ſubject to another, and oil, by deſtroying them, might effect a cure.

(30) Tum multo is [cui calculus ſectione evulſus] oleo perungendus. Celſ. l. vii. c. 26.

(31) Duritias magis diffundit [vetus oleum]. Plin. l. xxiii. c. 4.

(32) Quod ubi incidit [oſſi fracto ſuperincrevit nimius callus] diu leniterque id membrum perfricandum eſt oleo, et ſale, et nitro. Celſ. l. viii. c. 10.

(33) Id [nempe cubitus luxatus] diutius ex oleo, et nitro, ac ſale perfricandum [reliquis membris luxatis]. Ibid. c. 16.

(34) Luke x. 34.

(35) Uſum ejus ad luxuriam vertere Græci, vitiorum omnium genitores, in gymnaſiis publicando. Plin. l. xv. c. 4.

(36) Perſarum eſſe debet gentis unguentum. Illi madent eo, et accerſita commendatione, ingluvie natum virus extinguunt. L. xiii. c. 1.

was introduced among the Romans is uncertain; but that, after the defeat of Antiochus, and the conqueſt of Aſia, an edict was iſſued by the cenſors, forbidding the ſale of foreign ointments. He inveighs againſt the height to which this luxury had attained in his time, the exceſſive price of the compoſitions (whereof he exhibits ſeveral formulæ); and complains that private perſons, not contented with anointing the whole body, even to the ſoles of the feet (37), ſprinkled the walls of their baths, and mixed the water in bathing-tubs, with theſe precious ointments. That their uſe had even reached the camp, where the military ſtandards were perfumed on feaſt-days (38).

At this time the application of theſe ointments and perfumes employed as many people as the management of the baths. The perſon who ſuperintended this department, as well as he who directed unctuous applications to the ſick, was called *Jatraliptes*. Under him were the *Unctores*, who applied the ointment; the *Fricatores*, who rubbed or curried the ſkin with the ſtrigil, or other inſtruments of a ſimilar kind; the *Dropaciſtæ*, or *Aliparii*, whoſe buſineſs it was to remove the hair, either by extraction or depilatory applications; and, laſtly, the *Tractatores*, who were employed in gently moving, and ſqueezing, or kneading all the limbs, to render them ſupple, and at the ſame time give a pleaſing ſenſation (39). Mr Le Chevalier de Jaucort adds, that they carried depravity ſo far, that men had thoſe offices performed in the bath by women; for which he gives the authority of Martial (40). Here we may obſerve, that we ſometimes find a remarkable coincidence between the practices of the rude heroic ages, and thoſe wherein vice and corruption have attained the greateſt height. Cuſtoms, in which the plain and ſimple virtue of the firſt ſaw nothing to blame, are laid aſide, as ſcandalous, in times of more refinement, and again revived when degeneracy has increaſed ſo far as to deſtroy even the ſenſe of ſhame. Thus the virtuous Polycaſte was not aſhamed to bathe and anoint with oil the youthful gueſt of her father (41).

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(37) The ancients anointed their feet with oil, before they put on ſhoes; and therefore, when they went abroad, they carried a ſmall veſſel of it for that purpoſe. Heſychius. Meurſius, tom. v. p. 517.

(38) Plin. l. xiii, c. 1. and 3. The ancients were wont to anoint themſelves, and afterwards expoſe their bodies to the ſun, that their ſkin might the better imbibe the oil. Thoſe who did ſo were ſaid chromatiari. Thus Perſius, Sat. iv. 17.

Quæ tibi ſumma boni eſt? Uncta vixiſſe Patellâ
Semper, et aſſiduo curata cuticula ſole.
Meurſ. t. vi. p. 92, Cornut. in Perſ.
I, precor, et totos avida cute combibe ſoles:
Quam formoſus eris.—Martial, L. x. Ep. 12.

(39) Encyclop. ſur le mot *Gymnaſtique medicinale.*

(40) ——————— Percurrit agile corpus arte tractatrix,
Manumque doctam ſpargit omnibus membris.—L. iii. E. 81.

From the above deſcription of the Greek and Roman baths, we ſee that they very exactly reſembled thoſe ſtill uſed in Egypt, and in various parts of Aſia, of which we have a very minute account from the accurate Alpinus, and an animated and voluptuous picture from the lively Savary. The former mentions the habitual uſe of unction in thoſe baths (42), and gives ſeveral inſtances of its application, by the Egyptian phyſicians, to the cure of diſeaſes (43).

The power of oil to deſtroy vermin was known to Pliny (44); but we owe to the reſearches of modern phyſiologiſts the diſcovery that this is effected by ſhutting up their reſpiratory pores whereby the air, neceſſary to oxygenate their blood is excluded, and they die as by drowning (45).

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(41) Τόφρα δὲ Τηλέμαχον λοῦσεν καλὴ Πολυκάστη,
Νέστορος ὁπλοτάτη θυγάτηρ Νηληϊάδαο.
Αὐτὰρ ἐπεὶ λοῦσέν τε, καὶ ἔχρισεν λίπ' ἐλαίῳ. Od. iii. l. 464.
The laſt fair branch of the Neſtorean line,
Sweet Polycaſte took the pleaſing toil
To bathe the prince, and pour the fragrant oil.—Pope, l. 593.

(42) Eæ [mulieres] etenim ſæpiſſime corpora in iis [balneis] lavant, et mundant ab illuvie, perlotaque variis ornant odoribus, ut recte unguentis oleant. Alp de med. Ægyp. l. iii. c. 15.

Frictio [in balneis] quam volis manuum plerique operantur, et nonullis inunctis oleo ſeſamino. Ib. c. 18.

(43) In bilioſis febribus - - - - balneorum - - - eſt frequentiſſimus uſus. Corporaque illa in primis in aerem, temperate calidum paululum verſari ſinunt, in quo exudant, atque cutanei meatus laxantur, mox oleo violaceo, vel nenupharino ab eis inunguntur, &c. L. iii. c. 19.

Sunt qui inungunt per horam ante acceſſionem [febris] totam ſpinam dorſi a nucha ad lumbos uſque, oleo antiquo, ſampſuco, ruta, artemiſia, abſinthio, ſpica Inda, maſtiche ac thure ebullito, ipſoque calido inungentes, præmiſſa parva ac levi frictione. L. iv. c. 15.

Primis harum febrium [peſtilentium] ita peractis diebus, ad inunctionem totius corporis accedunt, cute quippe leniter perfricata, atque poſtea calida inunctione inuncta naturæ ad cutim expulſionem eo auxilio maxime adjuvantes; inunctionem vero ex oleo amygdalarum amararum, cum nitro rubro, quod natron appellant, parant. In pueris, ut etiam nuper dictum eſt, variolis vel puncticulis infectis, hac linitione nullum remedium ſecurius vel præſtantius habent. Ibid.

(44) Contra veſpas remedio eſt, olea aſpergi [uvas] ex ore. Plin. N. H. L. xv. c. 28.

Laſtly, We find the anointing of the body with oil, as one of the laſt pious offices towards the dead, in times of remote antiquity (46).

As our preſent buſineſs is with the uſe of unction among Aſiatics, it is deſirable to know the opinion of their own phyſicians on its effects. A compendium of this is contained in the following tranſlation of a paſſage which I received in manuſcript from a Muſſulman doctor. I regret that I did not at the time inquire from whence it was taken, which I have not ſince been able to aſcertain. "The practice of inunction in the bath is attended with ſeveral advantages. In the *firſt* place, although the bath is of itſelf moiſt, yet, becauſe of its promoting perſpiration, and thus diſſipating moiſture, it may become a cauſe of dryneſs. But

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Oleo quidem non apes tantum, ſed omnia inſecta exanimantur, præcipue ſi capite uncto in ſole ponantur. L. xi. c. 19.

(45) Mr John Bell relates an experiment which finely illuſtrates this poſition. "When we cloſe up the ſtigmata of an inſect, one by one, the parts become in the ſame proportion paralytic; if we varniſh over the ſtigmata of one ſide, that ſide becomes paralytic; if we varniſh over the ſtigmata of both ſides, up to the laſt holes, the inſect lives, but in a very languid condition; it ſurvives in a kind of lethargic ſtate for two days, without any pulſation in its heart; if we ſtop the two higheſt holes, it dies." Bell's Anatomy, vol. ii. page 167. See the progreſs of this diſcovery in the works of Malpighi, Reaumur, and Bonnet.

(46) Καὶ τότε δὴ λοῦσαν τε, καὶ ἤλειψαν λίπ' ἐλαίῳ. Il. xviii. l. 350.
The body then they bathe with pious toil,
Embalm the wounds, anoint the limbs with oil. Pope, l. 411.
——————— ῥοδόεντι δὲ χρῖεν ἐλαίῳ,
Ἀμβροσίῳ, ἵνα μὴ μιν ἀποδρύφοι ἑλκυστάζων. Il. xxiii. l. 186.
Celeſtial Venus hover'd o'er his head,
And roſeate unguents heavenly fragrance ſhed. Pope, l. 228.
——————— and ſmooth'd the hero o'er with oils,
Of roſy ſcent ambroſial, leſt his corſe,
Behind Achilles' chariot dragg'd along,
So rudely ſhould be torn. Cowper.

The tranſlator gives, from Villoiſon, the following note on this paſſage:—"The oil would lubricate, and make the body ſlide over ſuch impediments as might otherwiſe tear and disfigure it."

Δμῳὰς δ' ἐκκαλέσας λοῦσαι κέλετ', ἀμφί τ' ἀλεῖψαι. Il. xxiv. l. 582.
Then call the handmaids, with aſſiſtant toil,
To waſh the body, and anoint with oil. Pope, l. 730.

But the oil, entering the pores, prevents this effect, and confers moiſture and ſoftneſs (47). *Secondly*, In conſequence of profuſe perſpiration, certain matters are drawn outwards, and, in paſſing through the pores, irritate the ſkin; whence we ſee eruptions of pimples (prickly-heat) in the hot ſeaſon: now the oil, by its unctuous quality, ſoftens the pores, and guards them from injury (48). *Thirdly*, It cannot be doubted that, during the great inanition which takes place while ſweating in the bath, part even of the radical moiſture of the body is expelled: but the oil which enters the pores retains the radical moiſture in its place. Farther, the phyſicians of that country (probably Greece or Arabia) chiefly uſe the oil of olives, which prevents the accumulation of morbific matter. Beſides, the bath is often uſed in diſeaſes of the ſkin proceeding from dryneſs. The oil, beſides correcting this defect, confers a ſoftneſs on the ſkin. *Laſtly*, the ſkin becomes hard from any obſtruction of the pores, and oil removes that hardneſs."

The Hindoo phyſicians repoſe great confidence in the uſe of oily friction. In anſwer to my inquiries on this ſubject, Mr Boyd, whoſe knowledge of the Sunſkrit language has enabled him to ſearch deeply into their medical records, favoured me with ſome extracts from the Suſhurt, a very old book, and of high authority among the Burhumuns, in which is enumerated a variety of oils and unctuous ſubſtances, both from the vegetable and animal kingdoms. The articles of both kinds are no leſs than ſeventy-ſix in number. Among the moſt diſtinguiſhed are clarified butter from the cream or milk of various animals, and the oil of Seſamum.

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(47) Dr Mitchill ſays, that oil, applied to the ſkin by friction, is uſeful when the oily effuſion from the exhalant veſſels of the ſkin is too ſparingly ſupplied, or too quickly removed, in conſequence of which, the epidermis is apt to become horny, to crack, and to induce diſagreeable or painful ſenſation. Medical and Phyſical Journal, vol. iv. p. 10.

(48) A medical friend informs me, that one hot ſeaſon he was in the daily habit of cold bathing, and his body was covered with prickly heat to ſuch a degree as to be almoſt intolerable. At length it occurred to him, that by rubbing himſelf with peaſe-meal, or *beſun*, which had been his conſtant practice while bathing, the ſkin was deprived of its unctuous defence, and ſo more affected by the acrid matter of perſpiration. He immediately deſiſted from ſuch frequent uſe of *beſun*, that is, inſtead of once and ſometimes twice a-day, he applied it only twice a-week, but continued the cold bath in all other reſpects as before; the prickly heat diſappeared, and gave him no farther trouble.

The principal virtues for which their uſe, by way of inunction, is commended are, giving ſoftneſs and ſleekneſs to the ſkin, flexibility to the limbs, and ſtability to the body in general; increaſing the ſecretion of fat and of the ſeminal fluid; prolonging life; curing madneſs, epilepſy, fever, œdema, cutaneous diſeaſes, and worms; allaying lancinating pains of the abdomen, and thoſe from bruiſes, in whatever part; curing the bites of wild animals, and even of ſerpents.

Beſides this long catalogue of ſimple oils and unctuous ſubſtances, the Hindoo books treat of various medicated oils, calculated to anſwer particular indications.

The declenſion of arts and of diſcipline going hand in hand with that of the Roman empire, gymnaſtics fell into diſuſe; and the new form which ſociety aſſumed on the revival of letters, together with the revolution which gun-powder cauſed in the military art, prevented them from being reſumed. The habitual application of oil to the body in health was inconſiſtent with modern ideas of cleanlineſs; and our faith in its medical efficacy is greatly diminiſhed. Yet there are not wanting, among the later annals of the healing art, inſtances of its ſalutary effect.

Dr Cullen conſiders the operation of emollients (whereof oily and unctuous ſubſtances, whether from the animal or vegetable kingdom, conſtitute one claſs) to be rendering lax and flexible the parts to which they are applied. He thinks the direct action of oil, applied externally, is nearly, if not entirely, confined to the cuticle; but that the relaxation produced there is often, by ſympathy, extended much farther (50). On this principle we muſt account for the efficacy aſcribed by Murray (51), on the authority of Roſenſtein, to oily frictions, in allaying the uneaſineſs which, on changes of weather, attacks the ſeat of old wounds and fractures. We have ſeen before, that Celſus recommended them with a ſimilar intention (52). For the ſenſibility of a part depends greatly on the tenſion of its fibres. On the ſame principle, joined, perhaps, to its power of obtunding acrimony, we muſt account for the good effects which Profeſſor Hufeland found from its application in a morbid irritability of the male genital organs (53). And the ſame property muſt explain a fact mentioned by Dr Blane (54), that, in a caſe of locked-jaw, ſucceſsfully treated by Dr Warren, the uneaſineſs ariſing from the ſpaſm was allayed by conſtantly drawing a feather wetted with oil over the temples.

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(50) Materia Medica, vol. ii. p. 116, 117, 120, 126.

(51) Apparat. Medic. Tom. ii. p. 63.

(52) L. vii. c. 26.

(53) Medical and Phyſical Journal, vol. vi. p. 71.

(54) On Diſeaſes of Seamen, p. 570.

But, in conſidering the external operation of oil, we muſt take into our account the effect of the friction, by means of which it is applied. This, if extenſive and long continued, excites the veſſels of the ſkin, and conſequently the whole vaſcular ſyſtem, to ſtronger action. The cutaneous pores are at the ſame time relaxed by the oil, and by theſe united cauſes perſpiration is increaſed. Dr Hufeland accounts in this way for the good effect which anointing the body is ſaid to have had in the early ſtage of plague; for, ſays he, "it has been obſerved that this remedy was only of avail when a great perſpiration enſued." (55) The attention of medical men has lately been called to this remedy by Mr Baldwin, who appears to have been led to the trial by a very wild and eccentric theory (56). But, independently of that, its uſe among the Egyptians in peſtilential fevers, deſcribed by Alpinus, might naturally have ſuggeſted it. Whatever we may think of his reaſoning, the facts which he has adduced in favour of its efficacy deſerve ſome attention. And they have received a ſtrong confirmation from the benevolent exertions of Father Lewis in the plague hoſpital at Smyrna (57).

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(55) Medical and Phyſical Journal, vol. vi. p. 71.

(56) Baldwin's Political Recollections relative to Egypt. See alſo Annals of Medicine, vol. ii. p. 373; and Currie on Water, Appendix, p. 54.

(57) Monthly Magazine, April 1798. American Medical Repoſitory, vol. ii. p. 117. The Sçavans who accompanied the French expedition to Egypt mention the remarkable ſucceſs which had attended the practice of friction with oil in the plague hoſpital at Smyrna, and give an abſtract of a little work, containing inſtructions for its application, and proofs of its utility.

The neceſſity of early inunction, and of continuing the frictions till the perſpiration flows copiouſly, is ſtrongly inculcated. The perſpiration may be promoted by drinking an infuſion of alder flowers, (probably any diluting and lightly aromatic drink would anſwer equally well), and ſeveral directions are given for the regulation of diet, but nothing elſe is recommended in the way of medicine. (Memoirs relative to Egypt, &c. New Annual Regiſter for 1800. Head Criticiſm, &c. p. 161).

Dr Wittman tried the oily frictions, as recommended by Mr Baldwin, in a caſe of plague, which occurred in Syria. It excited profuſe perſpiration, but could not reſcue the patient from a fatal termination on the ſixth day of the diſeaſe. It proved more ſucceſsful with a typhus patient, who derived very evident benefit from its uſe. Travels in Turkey, &c. p. 487, 512, 536.

If inunction with oils and fats have ever been ſucceſsful in curing the bites of ſnakes and other venomous animals, or of the mad dog, it muſt be explained in the ſame manner. And, notwithſtanding its inefficacy in the numerous trials made by Fontana on animals, it is difficult to withhold our belief from ſome of the teſtimonies in its favour. Of theſe we find a long liſt in Murray (58), to which we may add thoſe made by Mr Baldwin, apparently with great fairneſs, on rats, with the poiſon of the ſcorpion (59). Murray gives alſo ſeveral inſtances of its failure, and endeavours to reconcile the diſcordant evidence by the want of accuracy in aſcertaining the ſpecies of ſnake which inflicted the bite; a difference in the depth of the wound, or in the nature of the part which received it; the quantity of poiſon infuſed, or the peculiar temperament of the ſubject. And he concludes by declaring the remedy worthy of farther trial.

For the bite of a mad dog, it was recommended by Dr Sims, on the authority of an ancient Greek manuſcript (60); and one caſe is given by Mr Shadwell, where inunction with oil, and forcing ſmall quantities of it down the throat, ſeem to have effected a cure, after the diſeaſe had begun (61).

But perſpiration is not the only excretion increaſed by friction with oil. Dr Cullen informs us, from his own experience, that, when long continued upon the teguments of the lower belly, it remarkably augments the diſcharge of urine (62). And, on this principle, it has been uſed in the cure of dropſy. Among the ancients, we have ſeen above its employment by Celſus in that diſeaſe. And Murray adduces precepts from Ætius, Galen, and Dioſcorides, to the ſame purpoſe (63). He then gives, from modern writers, many inſtances of its efficacy in the cure of aſcites, and lays down the following directions for its application. "The belly of the patient is to be well rubbed, morning and evening, or three times a-day, for one quarter, one half, or a whole hour, with the hand dipped in olive oil. This practice to be continued fór ſome weeks, or a month. Thus, after ſome days, a copious flow of urine is excited, the belly becomes open, and the ſwelling of the body ſubſides, with a return of the natural ſtrength. A ſwelling of the feet remaining diſappeared under the ſame treatment (64)." Dr Donald Monro found the beſt effects in anaſarca, from rubbing the belly, the legs, and the feet, morning and evening, with oil (65).

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(58) App. Medic. ii. p. 57, &c.

(59) Political Recollections.

(60) Memoirs of the Medical Society, vol. ii. p. 1.

(61) Ibid. vol. iii. p. 464. In ſo hopeleſs a diſeaſe, a ſingle ſucceſsful caſe is abundantly ſufficient to juſtify farther trials. But, that expectation may not be raiſed too high, which inevitably leads to diſappointment, it is proper to add, that Mr Shoolbred informs me he has tried this remedy, both in this diſeaſe and in tetanus, as far as it could be tried, by the mouth, by conſtant univerſal frictions, and by gliſters, without the ſmalleſt benefit.

(62) Materia Medica, vol. ii. p. 126.

(63) Appar. Med. vol. ii. p. 54.

From what has been ſaid, we may draw the following concluſions:

1. That the application of oils, and other unctuous ſubſtances, to the ſkin, ſerves to guard the body againſt the inclemency of the weather, particularly cold and moiſture.

Dr Sparman ſays, the ointment of ſoot and greaſe, with which the Hottentots ſmear their bodies, defends them ſo much from the action of the air, that they require very few clothes. And Dr Currie, with a ſimilar intention, recommends the uſe of inunction to Europeans in warm climates, eſpecially after warm bathing, to defend the body from the chilling effect of evaporation (66). He adduces the example of ſavage nations, who compenſate in this way for the defect of clothing; and obſerves that the ancients were accuſtomed to anoint their bodies, before the exerciſe of ſwimming, to mitigate the ſhock of immerſion (67). In the moiſt climate of Bengal, the practice of inunction is more frequent than in the northern and weſtern parts of Hindooſtan, where the air is drier.

2. It may prevent too profuſe perſpiration in hot weather, which is one cauſe of debility. It ſeems to be with this view that Hippocrates, in a paſſage quoted above, recommends, in ſummer, the wearing of clothes imbued with oil; and we ſee that the Aſiatic phyſicians entertain the ſame idea. Murray is

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(64) Ibid. p. 55.

(65) Treatiſe on Chemiſtry and Materia Medica, vol. ii. p. 299.

(66) Medical Reports on Water, &c. p. 204, &c. He quotes the following paſſage from Lord Verulam: "Inunctio ex oleo, et hyeme confert ad ſanitatem, per excluſionem frigoris, et æſtate ad detinendos ſpiritus, et prohibendam exolutionem eorum, et arcendam vim aeris, quæ tunc maxime eſt prædatoria. Ante omnia igitur uſum olei, vel olivarum vel amygdali dulcis, ad cutim ab extra ungendam, ad longævitatem conducere exiſtimamus. Hiſt. vitæ et mortis. Operatio ſuper excluſionem aeris. § 20, 17."

(67) Medical Reports, &c. p. 112. He gives the authority of Horace.—L. ii. Sat. 1.

——————— Ter uncti
Tranſnanto Tiberim, ſomno quibus eſt opus alto.

And Hieron. Mercurial. de arte gymnaſtica, L. iii. c. 14.

of the ſame opinion (68). Dr Cullen ſays there is no juſt foundation for this (69); but the only argument which he produces againſt it, viz. "the general practice of the ancients, as well as of Aſiatics in modern times," may only prove that a diminution of perſpiration, which, though perhaps very conſiderable, will be compenſated by other ſecretions, is attended with no bad effects on the ſyſtem. Dr Currie ſays, that unguents of a proper conſiſtence may retard exceſſive ſweating, yet not obſtruct moderate and neceſſary perſpiration; and, being themſelves evaporable, they may keep up a coolneſs that ſhall diminiſh the neceſſity of the natural diſcharge (70). The real ſtate of the fact can only be aſcertained by ſtatical experiments.

3. May it ſerve as a protection from contagion? Mr Baldwin thinks that perſons ſo prepared may attend their friends in the plague, without the apprehenſion of danger (71). And a

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(68) Claudendo poros, ſæpe nocet; in morbis præcipue, qui miaſma pro cauſa habent. App. Med. vol. ii. p. 51.

(69) Materia Medica, vol. ii. p. 127.

(70) Currie, l. c. p. 205.

(71) The French ſçavans in Egypt ſay, that in one year, in which the plague carried off a million of people in Egypt, there was no inſtance of an oil-porter being attacked by it. And they give numerous hiſtories of inunction having preſerved from the diſeaſe. (Memoirs relative to Egypt, &c. New Annual Regiſter for 1800, p. 163.) The tranſlator remarks on this paſſage, that, during the great plague in London, the tallow-chandlers enjoyed a ſimilar exemption. Dr Wittman ſays the merchants of Cairo poſitively affirm that the oil-ſellers, water-carriers, and tanners, are not ſubject to plague (p. 531). He alſo adduces ſeveral inſtances which fell under his own obſervation, wherein he thinks that oily frictions proved effectual as a preventative (page 487, 492, 512). Captain Francklin informs me, on the authority of Mr Thornton, a reſpectable merchant of Conſtantinople, that the ſame enviable ſecurity is enjoyed by the oil-ſellers in that city, and that the wearing of ſhirts dipped in oil (the ἵματια ἐλαιοπινα of Hippocrates) had been found uſeful in the prevention of the diſeaſe. Mr Eton ſays, the plague is unknown to thoſe nations who are accuſtomed to rub their bodies with oil. (Survey of the Turkiſh Empire, p. 267), Dr Mitchill quotes a ſimilar exemption from peſtilential fever, enjoyed by the tallow-chandlers of Philadelphia in 1793, and by thoſe of New-York in 1795 and 1796; (Trotter's Med. Naut. vol, ii. p. 304), and, thinking he has ſufficient evidence that the matter of contagion is a peculiar modification of nitrous acid, he explains, on that principle, how oily ſubſtances arreſt the noxious effluvia, and how a perſon may *ſhield himſelf from peſtilence by unction with greaſe*. (Ibid. p. 291, 295).

ſimilar practice is hinted at by Dr Monro Drummond (72). If the practice has any effect in this way, it is by obſtructing one channel of contagion, that by the ſkin. But the experiments of Mr Seguin and Dr Currie make it rather improbable that contagion is ever conveyed in this way, while the epidermis is found (73). At any rate, it is evident that, without other precautions, this muſt be unavailing.

4. May nouriſhment be thus conveyed? Dr Cullen ſays, the abſorption of oils from the ſurface is never in conſiderable quantity (74); and from the experiments related by Dr Currie (75), we muſt conclude that when the body is immerſed even in watery fluids, much leſs is abſorbed than had been ſuppoſed. The relief to thirſt experienced from that practice muſt therefore be accounted for by the diminution of perſpiration, and the ſympathy of the veſſels of the mouth with thoſe of the ſkin. It is alſo worthy of remark, that Alpinus, in his minute account of the proceſs uſed in Egypt for fattening the human body (an art which, it ſeems, is there reduced into a ſyſtem, and of which the bath is a principal inſtrument) does not mention unction as applied to that purpoſe (76).

5. It is worthy of trial in the incipient ſtage of plague, and, combined with internal exhibition, in the bites of venomous animals, of the mad dog, and in tetanus. But we have not yet ſufficient grounds of confidence in it to ſuperſede the uſe of other remedies; and therefore it ſhould be uſed ſo as not to interfere with their exhibition.

6. Its utility in dropſy appears to be better founded; and as it does not prevent the giving of proper medicines by the mouth, it ought, in general, to be uſed as a powerful auxiliary. In this as well as the laſt inſtance, it muſt be remembered, that as much is to be expected from the briſk and long-continued friction as from the oil.

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(72) Sintne quibus ſpiramenta linere ita poſſis ut contra contagionem impune claudas, neſcio. Majores profecto noſtri, pigmentis ſe infecerunt, Indique adhuc Americani corpora ſic inſcribunt, diverſiſque imaginibus variant; homines utrique ſaniſſimi. De Feb. Arcend. Thes. med. III. p. 149.

(73) Medical Reports, p. 272; and Appendix, 62—63.

(74) Mat. Med. ii. p. 126

(75) L. c. p. 177, 245, 266.

(76) De Med. Ægypt. If we may credit his account, Dr Gregory's maxim, "Neque homo, ut bos ad libitum ſaginari poteſt," (Conſp. med. I, 58), is not applicable to the Egyptians.

To the preceding excellent Eſſay on the external Uſe of Oil, the following Extract from Mr JACKSON's Reflections on the Commerce of the Mediterranean, printed at London in 1804, forms a valuable addition.

The Effects of Olive Oil on the Human Body.

IN the kingdom of Tunis, the people uſually employed as *coolies*, or porters, are, in general, natives of Gereed, or the country of Dates, about 300 miles from the ſea coaſt. Their dreſs is, in general, a wide woollen coat, its natural colour, with ſhort wide ſleeves over, wrapping round the body, and tied round the waiſt with a cumber band; they never wear a ſhirt, and ſeldom have either trowſers, ſhoes, or ſtockings , they have always a ſcarlet woollen cap upon the head, and ſometimes a coarſe white turban. Thoſe coolies that are employed in the oil ſtores ſeldom eat any thing but bread and oil; they ſmear themſelves all over with oil, and their coat is always well ſoaked with it. Though the plague frequently rages in Tunis in the moſt frightful manner, deſtroying many thouſands of the inhabitants, yet there never was known an inſtance of any of theſe coolies who work in the oil ſtores ever being in the leaſt affected by it. In the ſummer it is cuſtomary for theſe coolies to ſleep in the ſtreets upon the bare ground; we have frequently ſeen, in the night, ſcorpions and other venomous reptiles running about them in great numbers, yet we never heard of a ſingle inſtance where the coolies were ever injured by them; nor do the muſquitoes, which are always very troubleſome to other people in hot climates, ever moleſt theſe people, though their face, hands, and arms, from their elbows, are expoſed, as alſo their legs and feet; any other people, being ſo much expoſed, would be nearly deſtroyed by the muſquitoes. In Tunis, when any perſon is ſtung by a ſcorpion, or bit by any other venomous reptile, they immediately ſcarify the part with a knife, and rub in olive oil as quick as poſſible, which arreſts the progreſs of the venom. If oil is not applied in a few minutes, death is inevitable, particularly from the ſting of a ſcorpion. Thoſe in the kingdom of Tunis are the moſt venomous in the world.

The ſtrength and agility of theſe coolies and porters are almoſt incredible; having a great many ſhips to load, we employed ſeveral of theſe people, and have frequently ſeen one of them carry a load upon his back which weighed half a ton Engliſh weight, a diſtance of thirty or forty yards.

XI.

Caſe of Crural Hernia, in which the Obturator Artery ſurrounded the Mouth of the Sac. By JAMES WARDROP, Fellow of the Royal College of Surgeons, Edinburgh.

THE following caſe appeared to me intereſting, as it records a variety of crural hernia, which has been met with only in one other inſtance, ſo far as I know, and as the knowledge of ſuch a variety muſt be of conſiderable importance in a practical point of view.

A female ſubject was brought into an anatomical theatre in Paris, and, after laying open the abdominal cavity, I obſerved an unuſual looſeneſs of the peritoneum at both the crural rings. On introducing the point of the finger, it paſſed readily into a ſac, which extended below the ligament of the thigh, the common place of crural herniæ. The peritoneum was diſſected from the abdominal parietes, and removed from the inſide of the pelvis.

In this ſtage of the diſſection, the annexed ſketch was made as a memento of the caſe.

It repreſents the diſeaſe on the right ſide; (A) the pubes cut through at its ſymphiſis; (B) the abdominal muſcles thrown back over the thigh; (C) the iliacus internus muſcle; (D) the two pſoi muſcles; (E) the obturator muſcle.

The external iliac artery (F), and accompanying vein (G), take their uſual courſe along the edge of the pſoi muſcles. About half an inch from the foſſa, formed by the inſertion of the abdominal muſcles into the bones of the pelvis, the artery ſends off a branch (H), which is the common trunk of the epigaſtric and obturator arteries. The epigaſtric artery (I) takes its uſual direction, and paſſes obliquely, upwards and inwards, along the inner ſurface of the abdominal muſcles. The obturator artery (K) paſſes downwards and inwards till it enters the thyroid foramen. The veins paſs along the inſide of the arteries, run parallel with them, and take a ſimilar diſtribution.

Within the circle formed by theſe veſſels and the bone there is a large lymphatic gland, with veſſels paſſing from it along the inſide of the great iliac veins (L). The gland is ſituated at the mouth of the ſac, or rather at the opening through which the hernia paſſed, called the crural ring.

Another caſe of the ſame variety of crural hernia, and the only one I have heard of, I had an opportunity of ſeeing diſſected by Dr Barclay; and the preparation is ſtill in his poſſeſſion. The difference between it and the one juſt now deſcribed is in the ſize of the ſac, which, in the former, was much larger than femoral herniæ generally are.

It is evident, that if a portion of inteſtine had become ſtrangulated in this variety of hernia, ſo that an operation was neceſſary, there would have been great danger of wounding the obturator artery, ſuppoſing the operation had been performed in any of the modes uſually recommended. The artery and vein formed nearly a complete ring round the mouth of the ſac, and the greateſt care muſt have been neceſſary to have divided any portion of Gimbernat's ligament, in order to have preſerved theſe veſſels.

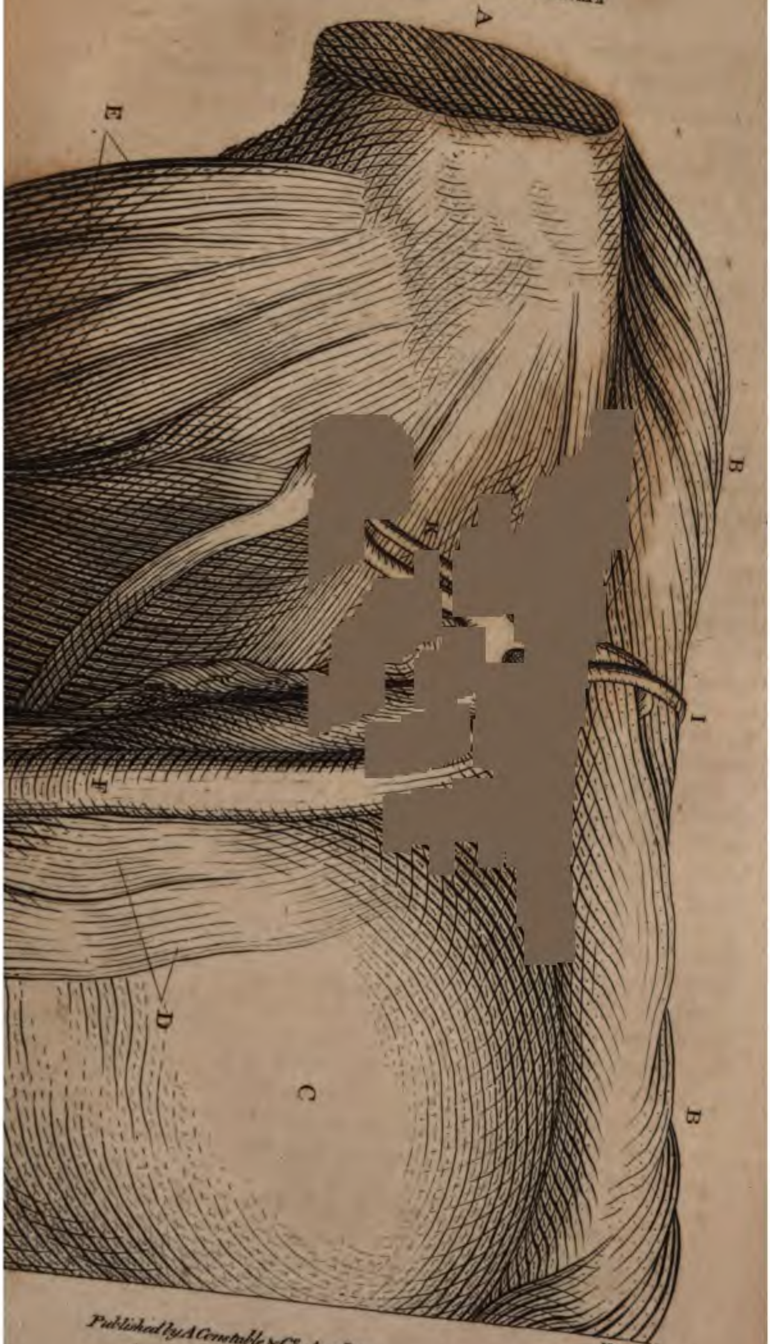
This mode of diſtribution of arteries, in the natural ſtate of the parts, is by no means unuſual, and has been particularly remarked by Prof. Murray of Upſal. Rougemont, the tranſlator of Richter's work on hernia, has alſo obſerved it, but he has never ſeen hernia combined with it. In a conſiderable proportion of the ſubjects which I have ſeen diſſected, there has been this form in the diſtribution of the veſſels. It is therefore probable that the variety of crural herniæ which has now been deſcribed happens more frequently than medical men have been aware of, and therefore the poſſibility of its occurrence ought to be taken into conſideration in laying down general rules for performing the operation.

It ought alſo to be remarked, that the relative ſituation of the hernial ſac and obturator artery will always vary in proportion to the length of the trunk common to it and the epigaſtric artery. If the trunk is ſhort, the artery will paſs round the mouth of the ſac; if it is longer, it will be found on the outer and poſterior part of the ſac. A caſe, where this laſt mentioned diſtribution took place, is deſcribed and delineated by Dr Monro jun.

My friend, Mr William Wood, in a very neat eſſay on crural hernia, publiſhed in the form of an inaugural diſſertation, takes notice of the caſes which I have juſt now related. Dr Saunders alſo publiſhed the ſame caſes in his Theſis on Crural Hernia, and gave a drawing of Dr Barclay's preparation; but as the circulation of theſe works is confined to the friends of the authors, I have taken the preſent method of making them known to the profeſſion at large.

What relates to the mode of performing the operation, and the improvements which have been propoſed ſince this variety of femoral hernia has been known, are ſo well expreſſed by Mr Wood, that I ſhall conclude with quoting his own words.

Mr WARDROP'S CASE OF HERNIA



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"Mr Thomſon, in reflecting on the danger of wounding the obturator artery with which theſe two methods of operating is attended, was led to propoſe another, with a view to avoid that danger; but a ſimilar method, as he afterwards found, had been recommended by the late Mr Elſe and by Mr Cline, though with a different view. By them it was propoſed merely to avoid wounding the epigaſtric artery in dividing Poupart's ligament. This operation is to be performed in the following manner. A ſmall opening is to be made in the parallel fibres of the tendon of the external oblique muſcle, immediately above Poupart's ligament, by ſeparating theſe by very ſlight ſcratches of the knife. Into the opening the point of a curved grooved director is to be introduced, which is to be paſſed downwards, ſo as to be brought out at the crural ring. Great care muſt be taken, in paſſing the director, to keep its point cloſely preſſed to the fibres of the crural arch, to prevent its getting behind the obturator artery, when it happens to ſurround the hernial ſac. The director will then lie immediately behind the ligament of Gimbernat, which may be divided on it without the riſk of wounding any blood-veſſel *.

"The only other method of dividing the ligament of Gimbernat, which has, as far as I know, been propoſed with the view of avoiding the obturator artery, is the following. The hernial ſac being laid open, a curved grooved director is to be introduced into the crural ring, and directed inwards to the ſymphyſis pubis, as recommended by Gimbernat, but on the *outſide* of the hernial ſac: care muſt be taken, in introducing the director, to keep its point cloſely preſſed to the ligament of Gimbernat; on it a few of the fibres forming that ligament are to be divided †. The diviſion of a very few fibres will generally be ſufficient to allow of the return of the prolapſed parts. This operation differs from that of Gimbernat, in the director being paſſed on the *outſide* of the hernial ſac. By this means the director lies between the ligament of Gimbernat and the obturator artery, which will therefore be completely removed from the edge of the knife. One objection to this method of operating is, that in caſes in which inflammation has taken place, previous to the performance of the operation, the hernial ſac is apt to adhere to the crural ring; ſo that in ſuch it would be impoſſible to paſs a director between them ‡."

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[*] The operation has been performed ſucceſsfully in this way, in two caſes in the Royal Infirmary, by Mr Law.

[†] Cooper's Lectures on Surgery. Thomſon's Lectures on Surgery.

[‡] Vide a probationary Surgical Eſſay on Crural Hernia, ſubmitted to the examination of the Royal College of Surgeons of Edinburgh, by William Wood, Member of the Royal Medical Society, &c. 8vo. Edinburgh. 1805.

PART II.

CRITICAL ANALYSIS.

I.

Coup d' Oeil ſur les Revolutions et ſur la Reforme de la Médecine, Par P. J. G. CABANIS, Membre du Senat Conſervateur, de l' Inſtitut National, de l' Ecole de Médecine de Paris, &c. &c. 8vo. Paris. 1804.

To all thoſe who practiſe phyſic as a trade, and to thoſe whoſe minds are concentrated within the narrow ſphere of noſological arrangement, the preſent work will appear inſipid and uſeleſs; it will be received, on the contrary, with gratitude and applauſe by men of refined and cultivated minds, by the ſcholar and the philoſophical phyſician. The country where good ſenſe and freedom of inquiry are indigenous will greet the arrival of this ſpecimen of the exertions of a foreigner, who thinks for himſelf, and thinks with that juſtneſs and profound accuracy which delights the mind capable of generalization, unſhackled by the terrors and unſeduced by the charms of novelty.

The object of M. Cabanis is to give a ſketch of the hiſtory of the revolutions of medicine, to characterize each revolution by the circumſtances in which it originated, and by the changes it produced in the ſtate and progreſs of the ſcience; and *laſtly*, to examine whether ſuch hiſtorical deſcriptions cannot furniſh ſome uſeful views relating to its reform and its improvement. In the firſt chapter the author diſcuſſes the degree of certainty belonging to the art of medicine. His ideas on this important ſubject agree ſo completely with thoſe which have been long familiar to us, and which we have endeavoured to illuſtrate in another place, that it is unneceſſary to enlarge farther on that point at preſent.

With regard to the various points of view in which the healing art may be conſidered, M. Cabanis juſtly obſerves, it is not to be confined to the principle of direct utility, to the relief and preſervation of our fellow-creatures, however pleaſing and important that practical conſideration muſt appear to every good man. A ſcientific knowledge of man comprehends his moral and phyſical hiſtory. The phyſician gives rules for the preſervation of health, he adminiſters remedies againſt ſupervening diſeaſes; the moraliſt regulates our conduct by precepts embracing all the private relations of life; and the legiſlator determines political duties in the way beſt adapted to the preſervation of ſocial order. It is with the portrait of man in their hands that each of theſe claſſes of men is to proceed. The object of their care is a being ſuſceptible of a limited but hitherto unappreciated degree of improvement. A phyſical education, properly conducted, developes the powers of his organs, creates new faculties, almoſt new ſenſes, and the diſtance to which two men of the ſame original capacity can be removed from each other, by different degrees of moral and intellectual cultivation, is equally immenſe. The ſum of thoſe cauſes which tend to improve the phyſical part of our frame prepare the materials, or furniſh the inſtruments, for putting others into a ſtate of activity. All are in a ſtate of contact; medicine is their natural centre. The ſcience of medicine, therefore, may juſtly claim a conſiderable influence on the improvement of mankind.

The 2d chapter contains a brief retroſpect of the hiſtory of medicine from its origin to the preſent time. It may be ſufficient to extract two or three paſſages which ſeem beſt calculated to intereſt our readers.

The article concerning Hippocrates is particularly intereſting; it ſhows the influence which a ſtrong mind has upon the progreſs of ſcience, and points out this lamentable truth, that a man of great genius, overſtepping the age in which he lives, often leaves nothing behind him but the recollection of ſomething ſtrange and irregular. His name lies dormant till another rivals his predeceſſor, reſtores him to public view as a pattern of excellence, and leaves him perhaps again to oſcillate between fame and oblivion. It was amidſt the games of his youth that Hippocrates received from his parents the firſt rudiments of medical knowledge; it was at the bed of the ſick that he learned to recogniſe their ailments; and by being an eye-witneſs to the preparation and the uſe of remedies, their nature and effects became familiar to him. The true philoſophical method of Hippocrates is to be found in his books of Epidemics and of Aphoriſms. The former not only preſent faithful pictures of the moſt important diſeaſes, but they demonſtrate alſo how obſervations of that ſort are to be made, and how it is poſſible to lay hold of the moſt ſtriking features of a complicated fact, without loſing one's ſelf and miſleading others amidſt uſeleſs particulars.

The aphoriſtical books have always been looked upon as models, both for the grandeur of the views, and the preciſion of the ſtyle. There we find the true univerſal method, the only one which is adapted to the exerciſe of our intellectual faculties, which, in every art or ſcience, ariſes from obſervation, and transforms the reſults of numerous facts into practical rules. That new ſpirit of inveſtigation, applied to the healing art, was like the burſting forth of light, diſſipating the phantaſms of darkneſs, and reſtoring to the ſurrounding objects their true form and colour. Hippocrates had courage enough to throw away former errors, and to retain the uſeful part of the labours of his predeceſſors: he traced out the only road to ſolid diſcoveries, and if his diſciples had well underſtood the principles of their maſter, they might have laid the foundation of that method of analyſis which will hereafter daily create new inſtruments for the operation of the human mind. To this great and good man his friends, his countrymen, and the world at large, are indebted for much; how he was repaid by them can be preſumed from the contents of his letter to Democritus. He therein complains of his profeſſional troubles, of the wrong and partial judgment of which a phyſician is commonly the object, of the injuſtice of the public towards thoſe who practiſe their art with moſt ſkill and talents; and he declares, that in the courſe of a long life devoted to the ſervice of his fellow-creatures, and not without ſome degree of fame, he had incurred more blame and cenſure than obtained ſucceſs and applauſe.

Among the phyſicians who have contributed moſt to the re-eſtabliſhment of the Hippocratic method, loſt in the barbariſm of the dark ages, Sydenham holds a very diſtinguiſhed rank. At the time of his appearing in this country, medicine was buried in a ſcholaſtic jargon; the progreſs of the other ſciences was marked only by their baneful influence on the theory of phyſic. Sydenham, guided by his genius, endeavoured to recal the practice to the rules of experience. Locke was his friend, and the friendſhip of ſuch a man marks ſufficiently the turn of his mind who deſerved it. Such, indeed, was the confidence which he placed in the philoſopher's judgment, that, in his treatiſe on acute diſeaſes, he mentions its being approved by his illuſtrious friend, as a proof of the rectitude of his method. He attacked, with the arms of experience, ſeveral dangerous prejudices which exiſted in his time; he condemned the uſe of cordials at the beginning of acute diſeaſes, and ſhowed moſt clearly that the excluſive employment of ſudorifics in ſmall-pox, and other eruptive diſeaſes, had been more fatal to mankind than a ſeries of deſtructive wars. We are indebted to him for the knowledge of thoſe general variations to which epidemical complaints are annually ſubjected, of their relations with the different ſtates of the atmoſphere, and of their independence of thoſe ſtates, often equally evident; of the influence which they have on ſporadical diſeaſes; and, *laſtly*, of the manner in which they are balanced in their ſucceſſion, though the order of that ſucceſſion be not yet ſubject to fixed rules on which perfect reliance can be placed.

Boerhaave was originally educated for the church, but he was afterwards diverted from it by his taſte for the mathematical and phyſical ſciences, which he taught for ſome time in order to gain a livelihood. It was not till late in life, after being already furniſhed with profound and diverſified knowledge, that he began his medical career. His mind had acquired ſtrength, a habit of ſevere diſcuſſion, and great powers of attention; but his tact, exerciſed for the firſt time on new objects, at a period of life, too, when external impreſſions begin to become weak from a diminution of the general ſenſibility, or rather confuſed by their multiplicity, never reached that degree of perfection which renders the treaſures of knowledge and the vigour of reaſon of ſo much avail at the bed-ſide of the ſick. Miſled, beſides, by the temptation, ſo natural and ſo general, of applying whatever we learn to what we already know, and confiding in the vigorous proceedings of geometry, he endeavoured to bring them into a ſcience, ſo unfortunately characterized by the mobility and uncertainty of its rules. Boerhaave had peruſed the writings of every ſect and of every age; he analyzed and commented upon them; he modified and combined their labours, diffuſed over the whole a moſt luminous order, and ſoon brought out thoſe inſtitutions of medicine, and thoſe practical aphoriſms, which form the moſt extenſive and accurate picture that had ever appeared in natural ſcience. Happy would it have been, if the notions of various ſuppoſed acrimonies, and of their neutralizations, if the mechanical and hydrautical hypotheſes, had not ſo often impaired the beauty of the work. It is equally to be regretted that, in more ſtrict adherence to the natural order of the formation of ideas, he ſhould not have begun his expoſitions by collecting and claſſing facts, inſtead of commencing always by ſtating reſults; the writings of that extraordinary man would then have been as great models in the art of teaching and philoſophizing as they are of erudition, perſpicuity, and preciſion.

After the reſtoration of learning, public inſtruction was intruſted to bodies of men, ſlow in their progreſs, and always intereſted, from vanity or policy, in rejecting new ideas, and reſiſting the general advancement of knowledge. During the eighteenth century the progreſs of public inſtruction gained in ſtrength and rapidity : reaſon and common ſenſe ſurrounded the ſchools, beſieged them on every ſide, and crept between the benches. In juſtice to them, it muſt be granted, that they have moſt bravely fought againſt their opponents, but in vain ; for, let them do what they will, their *deſpotical* reign is over !

M. Cabanis proceeds, in the 3d chapter, to give ſome general remarks on the method of teaching medicine. Theſe may be read by the ſpeculative as well as the medical philoſopher, as an inſtance of ingenious and accurate reaſoning, ſuch as is not often met with in medical books. The author has too much good ſenſe to object to the principle of claſſification in general ; it is not only uſeful, but abſolutely neceſſary, in the expoſition of medical facts. Noſological arrangements, however, are ſo liable to abuſe from the raſhneſs with which they are frequently framed, and their incorrectneſs when applied to practice, that it is pleaſing to ſee the well-directed efforts of thoſe who wiſh this pillow of indolence to be ſupplanted by more accurate obſervation and inquiſitive induſtry.

We recommend likewiſe the peruſal of a few pages in which the author attempts to anſwer the two following queſtions : *1ſt*, How does it happen that ſo many well-informed men, who had living pictures of diſeaſes daily before their eyes, could have been miſled by notions which thoſe pictures ſhould, it ſeems, have continually prevented ? *2d*, How is it poſſible for the authors of the moſt wretched theories to have been, at the ſame time, wiſe phyſicians and uſeful practitioners ? The ſubject is the more intereſting, becauſe ſimilar incongruities between theoretical and practical habits occur equally in our moral conſtitution ; and both ſorts of anomalies frequently preſent themſelves in the ſame individual, whenever the imagination is cultivated at the expenſe of the active powers.

In preſenting the following reflections in the author's own words, it would be ſatisfactory to add, that thoſe men who preach reform with moſt eloquence are the firſt to enter the laborious career, in the way not only of precept, but alſo of example.

" Quand on jette les yeux ſur la maſſe entière des faits de médecine, que les ſiécles ont recueillés, l' eſprit ſe trouve comme perdu dans leur nombre, et dans leur diverſité. Que faire alors ? ce que fait un homme qu' on place á côté d' un amas d' objets confondus, et qu' on charge de les diſtinguer et de les claſſer en indiquant, dans l' ordre même de leur diſtribution, les rapports qui peuvent être obſervés entre eux. D' abord cet homme s'arrête ſur les grandes differences ſur celles qui ſont le plus inconteſtable, et, en même tems, les plus facile á ſaiſir ; il en tire ſes premiers moyens de diviſion ; il

revient enſuite ſur chacune de ces claſſes generales. En conſiderant, avec plus d' attention, les objets qu' elles renferment, il y reconnoit des differences moins frappantes; mais cependant ſenſibles, qui lui ſervent á tracer des diviſions ſecondaires. Ainſi, de proche en proche, il va claſſer, diviſant et ſubdiviſant juſqu' á ce que tous les objets ayent trouvé la place qui leur convient le mieux."

" La ſcience, ou du moins les ouvrages deſtinés á en preſenter le tableau le plus fidèle ſe reduiroient donc d' un partie á des recueils complets, et bien ordonnés d' obſervations; de l' autre á des courts expoſés théoriques où l' on rendroit compte, 1. De l' eſprit dans lequel ces recueils ſont et doivent être formées, des reſultats les plus directs qui peuvent être tirés de ces differentes obſervations. Pringle diſoit que la médecine étoit depuis les Grecs juſqu' á nous une ſcience, où ſur peu de faits l' on faiſoit beaucoup de raiſonnemens; et qu' il falloit, au contraire, á l' avenir y faire peu de raiſonnemens ſur beaucoup de faits. Dans cette manière d'elementer l'art de guerir, la ſeule dont il ſoit encore ſuſceptible le veu de cet empirique reſpectable ſeroit rempli. . . . .Ne ſeroit ce pas auſſi le moyen de raminer la paix, et de l' établir ſolidement entre les deux grandes ſectes, qui diviſent la médecine depuis ſa naiſſance, entre les dogmatiques et les empiriques? Les eſprits les plus ſages de l' un et l' autre part ne retrouveroient ils pas dans ces tableaux tout ce qu' ils s' accordent á deſirer dans un bon ſyſtème et rien de ce qu' ils ſe reprochent mutuellement? Et qu' on ne ſe diſe pas que ce ſeroit couper les ailes au genie, et le reduire á l' emploi ſervile de copiſte, où de faiſeur de tables arides. J' ignore d' abord, ſi, dans les ſciences qui demandent avant tout de l' attention et de l' exactitude, il eſt ſi neceſſaire de donner ce qu' on appelle *des ailes au genie*, où ſi, comme le dit un homme (Bacon) qu' on accuſeroit difficilement d' avoir été timide, il ne vaudroit pas mieux attacher du plomb aux pieds. D' ailleurs qu' on ſe raſſure, le genie et le zèle auront encore de quoi s' exercer dans cette grande reforme, ou plutot, la carriere qui s' ouvre devant eux eſt entièrement neuve, et pour ainſi dire, illimitée; et l' on ne pourroit preſque plus delors faire des faux pas réellement dangereux." P. 270.

In the concluding chapters of this book, the author proceeds to treat of the various branches of medical ſtudies. He particularly inſiſts upon the advantage of clinical inſtitutions, as the *ſine quâ non* of uſeful inſtruction. There, and there only, the ſtudent becomes converſant with the eſſential object of his labours; the teacher can point out and accurately determine what muſt be examined and recogniſed in actual practice; and there only the method of obſerving can be traced in its elements. The Greeks taught practical medicine at the bed of the ſick; the Romans and Arabs enjoyed the ſame advantage; and, among the moderns, the ſchools of Vienna and of Edinburgh have been the firſt to avail themſelves of that moſt important part of medical inſtruction. The philoſophical zeal of Joſeph II.

rendered the ſchool of Vienna ſuperior to every thing which had been before conceived; that of Edinburgh, rendered conſpicuous almoſt all at once by a reunion of eminent men, has not only appeared in the greateſt poſſible ſplendour, but has, in fact, formed a number of excellent practitioners, many of whom are now rendering the greateſt ſervices to humanity in every part of the world.

Among his remarks on the ſtudy of the materia medica, M. Cabanis ſtates, with equal reaſon and force, the abſurdity of claſſing one article under ſeveral heads, to make it appear calculated to anſwer the moſt different purpoſes, without ſpecifying the circumſtances which, in any particular inſtance, have determined one certain mode of action inſtead of another. Obſervations on the properties of remedies ought not only to be made at the bed-ſide of the patient, ſo as to give particular facts inſtead of generalities, but the various cauſes apparently operating upon the ſyſtem along with the drug ſhould be moſt accurately enumerated. Without that precaution we muſt ever remain in the dark; no analytical knowledge of the virtues of medicines can poſſibly be obtained. Our materia medica is already too rich; there is no want of new remedies, but rather of a good method for uſing thoſe which are already known. Cappivaccius uſed to tell his pupils, "*Diſcite meam methodum, et habebitis arcana mea.*"

Moral philoſophy is a ſubject which has not eſcaped the attention of our judicious phyſician. Unlike many of his brethren, who, abſtracting man from man, fetch all their medical reaſoning from the apothecary's ſhop, without ever ſuſpecting (juſtly enough perhaps) that there is any thing within themſelves but fleſh and blood, M. Cabanis points out the great difference diſcovered by attentive obſervation between the phyſical ſuſceptibility and organical habits of the different claſſes of ſociety. The modes of treatment, often ſimple and uniform when applied to individuals whoſe mind or ſenſibility has received little or no cultivation, become complicated, varied, and difficult, when directed to perſons whoſe moral exiſtence has attained a greater degree of developement. Thus, he adds, the practice of medicine is reduced to a few formulæ only in the country and in hoſpitals, while it is obliged to multiply, to vary, and to combine its reſources in the treatment of patients devoted to ſtudy, to buſineſs, or to the pleaſures of a refined life.

What has been now ſaid of the work of M. Cabanis may be ſufficient to ſatisfy moſt of our readers, and may perhaps awaken the curioſity of others. Within the limits of a few pages it is impoſſible to do juſtice to a treatiſe in which all the ideas ſtand in cloſe relation to each other, and in which we have to admire the correctneſs and ſplendour of the views, rather than any particular diſcovery of the author. His book ſhould be read from beginning to end, and conſidered with attention by men who do not diſlike reaſoning, becauſe the word ſounds heavily in their ears. Such works are not common, but, ſhould any come again before us, we ſhall deem it our duty to perſevere in recalling ſimilar home truths to the recollection of our profeſſional brethren.

II.

Relation Hiſtorique et Chirurgicale de l' Expedition de l'Armée d'Orient, en Egypte et en Syrie. Par D. J. LARREY, Docteur de l' Ecole Spéciale de Médecine de Paris; Chirurgien en chef de l' Armée d' Orient, &c. &c. 8vo. Paris. 1804.

THE author of this work was the ſurgeon-general of the French army in the celebrated expedition to Egypt. His poſt afforded him abundant opportunities for practical obſervation, and he ſeems to have been diligent in availing himſelf of them, by collecting a number of important and intereſting facts, which he lays before the public as the reſult of his profeſſional labours. The dryneſs of dull and minute detail in the narrative is relieved by ſhort accounts of the marches and counter-marches of the armies; of the difficulties and dangers they paſſed, of the hardſhips they underwent; and concludes with ſome entertaining remarks on the cuſtoms and manners of the inhabitants of that remarkable country. M. Deſgenettes has already publiſhed the hiſtory of the medical department; his colleague, M. Larrey, will ſuffer nothing by a compariſon of his book with that diſtinguiſhed phyſician's, which has been ſo favourably received. The various contents of this ſurgical hiſtory are divided into ten ſections, from each of which ſome curious information might be extracted. So many hiſtorical documents, however, relative to this memorable expedition have been printed, that we ſhall confine ourſelves to a general review of the ſurgical or profeſſional topics treated of; and the more readily, becauſe very few good books or complete medical hiſtories of our victorious armies have been publiſhed in our own language. M. Larrey's deſcription of the ophthalmia correſponds with that given by all authors now familiarly known. He obſerved perſons with light eyes were more frequently attacked with this diſeaſe than thoſe with dark-coloured eyes; and that the right eye was more violently affected than the left; for all thoſe who became blind of one eye were ſo on the right ſide. This circumſtance is ſuggeſted by our author to have been owing to the habit of lying down to ſleep on the right ſide, by which means this part firſt receives the impreſſion of the cold and wet ground. Moiſture, and the cold and damp air of the night, are conſidered as the cauſes. The method of cure conſiſted of general and topical blood-letting, warm and emollient fomentations, with the exhibition of acidulating and refreſhing remedies internally. The moſt favourable and complete ſucceſs attended this plan of treatment: according to M. Larrey's account, not one man loſt his ſight, or became perfectly blind, out of 3000 men, and upwards, who were affected with ophthalmia. He ſays the Engliſh ſurgeons followed the ſame method of cure which they found deſcribed in the hoſpitals at Roſetta; but it is well known no ſuch boaſted ſucceſs enſued. Many French ſoldiers, who had eſcaped this diſeaſe in Egypt, were ſuddenly ſtruck with blindneſs, more or leſs complete, on returning home; which ſeemed to ariſe from a paralyſis of the organ of ſight, induced by a ſudden change from the hot climate of Egypt to that of France in the coldeſt ſeaſon of the year.

Tetanus, accompanying wounds in Egypt, appeared to be attended by ſymptoms different from thoſe which the author had before obſerved in Europe and in North America. Wounds on the courſe of nerves, or on the joints, were often followed by tetanus, particularly during the ſeaſon when the temperature of the air changes from one extreme to the other, in wet ſituations, in the neighbourhood of the Nile, or near the ſea. Many men were ſeized with this ſpaſmodic affection after the battle of El-Alrich, and after the taking of Yâfa, when the wounded were placed in tents on the wet ground, expoſed to conſtant rain, and in want of many neceſſary articles. Dry and irritable temperaments were moſt liable to be attacked by tetanus, and it generally terminated fatally on the 5th or 7th day. The ſuppreſſion of cutaneous perſpiration by cold ſeemed to have a remarkable effect in increaſing the morbid irritation excited by the local injury. Opium in large doſes proved of great ſervice; bleeding in ſome caſes was uſeful, in others forbidden. Cataplaſms of tobacco leaves applied to the wounds were not followed by any alleviation of the ſymptoms: alkaline medicines were employed with no better ſucceſs: the moxa ſeemed to aggravate the diſeaſe: frictions with oil produced no effect, and mercurial frictions appeared to increaſe the ſymptoms. The uſe of this remedy in the way of friction requires great caution in Egypt, even for venereal complaints. Our author found by experience that the exhibition of mercury in Egypt, as in Europe, was followed by terrible conſequences. Bliſters applied to the throat in triſmus were of no uſe; moxa and the actual cautery, recommended by the father of medicine, were tried with the ſame reſult. When the convulſions are cauſed by the reflux of purulent matter (as M. Larrey expreſſes it), bliſters applied as near as poſſible to the wound, or upon the wound itſelf, bring back the ſuppuration, and the ſymptoms of tetanus ceaſe. Several examples of the ſucceſs of this practice are adduced A young man was ſeized with tetanus 24 days after the amputation of his leg, when the limb was juſt healed; a large bliſter was immediately applied to the ſtump, which produced a copious ſuppuration, and determined a miliary eruption to the ſkin; and, from that moment, the ſymptoms of tetanus abated, and the patient was ſoon cured. The inefficacy of the ordinary remedies, the fatal termination of ſo many caſes, and the unexpected ſucceſs attending the amputation of a wounded limb, in the caſe of an officer attacked by a chronic tetanus, all theſe conſiderations ſuggeſted to M. Larrey the following queſtion: 'Whether it would not be better to amputate the wounded limb, as ſoon as the ſymptoms of tetanus ſhow themſelves, rather than to wait for an uncertain cure, either from the reſources of nature, or from the action of doubtful remedies?' This important queſtion is reſolved in the affirmative by our author, and the following are his reaſons:

'Lorſqu' il eſt bien reconnu que le tetanos eſt determiné par la bleſſure, il ne faut pas heſiter de faire l' amputation dès l' apparition des accidens. On peut s' aſſurer, qu' il eſt traumatique, par la nature de la place, la marche des premiers ſymptômes, et en conſidérant l' époque de leur invaſion, qui ſe fait du cinquième au quinzième jour, au plus tard. Il parait que c' eſt le moment ou la mobilité nerveuſe eſt trés forte. Lorſque la ſuppuration s' établir, la ſtupeur ſe diſſipe promptement, les vaiſſeaux ſe dégorgent, les eſcarres ſe détachent, et les nerfs entrent dans un état de liberté parfaite; alors leur ſenſibilité eſt extrême, et ils ſont ſuſceptibles, par les legères impreſſions, d' une irritation des plus grandes qui ſe propage bientôt dans tout le ſyſtême nerveux. Si dans cette circonſtance la place eſt frapée par un air froid et humide, ou qu' il ſoit reſté des corps étrangers piquant les parties nerveuſes iſolées de leurs eſcarres, le tetanos eſt inevitable, ſurtout dans les climats chauds. On doit enſuite s' attendre à le voir s' aggraver rapidement, en ſorte qu' en trés peu de temps, toutes les parties du membre ſont priſes, et tous les nerfs irrités. - - - - - La ſection du membre, faite dans les premiers momens de la declaration des accidens, interrompte toute communication de la ſource du mal avec le reſte du ſujet : cette diviſion, degorge les vaiſſeaux, fait ceſſer les tiraillemens nerveux, et detruit la mobilité convulſive des muſcles, les premiers effets ſont ſuivis d' un collapſus général, qui favoriſe les excretions, le ſommeil, et retablit l' equilibre dans toutes les parties du corps.'—P. 75.

To us this reaſoning does not appear quite ſatisfactory; it is by no means proved that tetanus is occaſioned by a wound, though accompanied by it. The cold and moiſt air of the night is ſtated to have been the remote cauſe of this ſpaſmodic attack, and it ſeems moſt probable. How, then, can the amputation of a limb obviate the effects of a general cauſe, which is acting upon a ſyſtem, the equilibrium of which is deſtroyed by a local injury, either by a wound from a cannon ball, or from a ſurgeon's ſcalpel? The ſeat of the irritation may be changed, but not removed; and, if the ſame remote cauſes continue to operate, there ſeems little to be gained by amputation of the limb. "*Sublatâ cauſâ tollitur effectus*," is an axiom which does not hold good in animal as in mechanical bodies; the cauſes are ſo multiform and various, and the mind is ſo apt to refer to one an effect which depends upon many, whoſe influence is often overlooked or diſregarded. M. Larrey regrets not having it in his power to adduce a greater number of caſes ſucceſsfully treated by this operation performed under ſuch formidable circumſtances. One inſtance only is related of a perfect cure; two others were greatly relieved, but terminated fatally in a few days by the recurrence of the ſpaſmodic ſymptoms, for want of proper means of avoiding the increaſing coldneſs and wetneſs of the night. However, he draws the two following concluſions: 1. That of all the remedies recommended by the moſt able practitioners, he has found by experience the extract of opium *(l'opium gummeux)*, combined with camphor and nitre, diſſolved in a ſmall quantity of emulſion, made with ſeeds or ſweet almonds, produce the beſt effects; eſpecially as patients who have a diſlike for other liquids take this medicine with pleaſure, which can be aſſiſted by bleeding, if neceſſary, or by bliſters applied in the manner already mentioned. 2. That amputation timely performed is the moſt certain method of arreſting the progreſs of tetanus, when it depends upon a wound ſeated on the extremities.

In ſpeaking of Yâfa, M. Larrey ſays, he ſhall paſs over in ſilence the horrible conſequences which commonly occur at ſieges. He was a melancholy witneſs of what happened at Yâfa; but it will be remembered that he is an admirer of the bold and adventurous ſpirit of Bonaparte, and now holds the rank of ſurgeon to the conſular guard. Circumſtances oblige him to refrain from recording thoſe tranſactions, which muſt tarniſh the victory of the greateſt hero, and ſtamp the nobleſt exploits with the deteſtable characters of cruel and ſelfiſh ambition. The ſiege of Acre coſt the lives of many ſoldiers, and added about 2000 to the liſt of the wounded. The wounds, in general, were ſerious and complicated. It was neceſſary to perform 70 amputations, two of which were at the hip joint; the firſt on an officer, who gave great hopes of recovery, when he was attacked by the plague, and died; the ſecond on a ſoldier, who died from the conſequences of violent concuſſion from a ball. Out of ſix amputations at the ſhoulder joint, four were completely cured; two died from the effects of concuſſion. Seven caſes trepanned, and five of them cured; two of them were trepanned on the frontal ſinus.

Before the army left Syria, a great number of the ſoldiers were attacked by the plague; it ſeldom attacked the wounded men, and ſcarcely an inſtance occurred of any one being affected by it, whilſt the wounds were in a ſtate of ſuppuration, though many were infected as ſoon as their wounds were healed. This obſervation was made by all the writers on the plague; and it is well known that Europeans who are eſtabliſhed in Egypt and Syria guard themſelves from this peſt, or at leaſt ſeem to be leſs diſpoſed to be affected by it, by means of habitual iſſues. A ſhort memoir, then, is inſerted of the plague, which coincides with the hiſtory given by Deſgenettes and other French writers, and by our countryman Mr M'Grigor, in his valuable work reſpecting the army of the eaſt. Some important remarks are to be found under this article, for which we muſt refer the reader to the original narrative. We paſs by that part to notice another equally curious, and not ſo commonly deſcribed. In paſſing a deſert, before reaching Sſalahhiek, the ſoldiers, tired and thirſty, lay down and drank with avidity of ſome ſoft and muddy water, which they found in ſmall pools at ſome diſtance from each other. A great quantity of ſmall inſects were in this water, and, among them, a ſpecies of leech, which proved a very ſerious enemy to many of the men who quenched their thirſt at theſe places. This little animal reſembles thoſe deſcribed as being common in Ceylon; it is ſometimes long, and, though naturally not larger than a horſe's hair, it is capable of being enlarged, by ſucking blood, to the ſize of a common leech; its colour is black, and its form not particular. The effects of this leech were ſoon perceived by thoſe who had ſwallowed any of them. A violent pricking was firſt felt in the throat, accompanied by cough and ſpitting, ſlightly tinged with blood, and efforts to vomit. Violent hemorrhagies then took place, difficulty in ſwallowing, laborious reſpiration, and conſtant tickling in the throat, which excited cough, &c. Theſe ſymptoms increaſed to an alarming degree, and in ſome inſtances proved fatal, without any aſſiſtance being given, for want of knowing the cauſe of the diſeaſe, or not being able to apply the proper remedy. Extracting the leech by the polypus forceps was the beſt means of relieving this complaint, or employing injections and gargles of ſalt water and vinegar, and fumigations, with tobacco and ſquills. The Egyptians know that horſes ſometimes get theſe inſects into their noſtrils when they drink at particular ponds; they are informed of this circumſtance by the uneaſineſs of the horſe, and by bleeding from the noſe, which happens the ſame day, or the day after. The farriers of that country extract them, with great dexterity, by means of pincers made for this purpoſe; when they have no inſtruments at hand, they inject ſalt water. A ſimilar accident happening to a man was never known before; ſuch inſtances were now frequent.

After the battle of Heliopolis and the ſiege of Cairo, the fatal conſequences of the wounds made the ſoldiers believe that the balls of the enemy were poiſoned: it was eaſier to get rid of this erroneous notion than to get rid of the diſeaſe. It preſented, ſays M. Larrey, all the ſymptoms of the yellow fever, as it appeared at St Domingo; and accordingly it is here deſcribed under the title of yellow fever complicated with gun-ſhot wounds. This diſeaſe appeared on the 4th of April, and ceaſed at the beginning of June; it was contagious, and proved fatal to many. The cauſes were, the bad ſtate of the hoſpital, the damp rooms, the troops having been encamped in a marſhy ſituation, the exceſſive fatigue, want of food and proper medicines, &c. The author thinks there is great analogy between the yellow fever and the plague. Mr M'Grigor has run this parallel very cloſely, and with great plauſibility. The 5th ſection contains ſome ſpeculations on the pernicious influence of warm climates upon fat people, and ſome practical remarks on hepatitis, in which the propriety of opening abſceſſes in the liver is ſtrongly inſiſted on, and illuſtrated by caſes; and it concludes with an account of a waſting of the teſticles. Several ſoldiers of the army of Egypt, on their return home, complained of the almoſt total diſappearance of their teſticles without any venereal diſeaſe. This atrophy gradually took place without any pain; it is attributed, by our author, principally to the effects of the hot climate.

Lepra and elephantiaſis are common diſeaſes in different parts of Egypt; the uſe of ſalted meat and fiſh, and unwholeſome animal food, eſpecially pork and wild-boar, are conſidered among the cauſes of theſe diſorders, in conjunction with the dirtineſs and negligence of the inhabitants. It was obſerved, that all the French who lived upon pork for ſome time ſuffered inconvenience from it; many were attacked by a leprous eruption. The fleſh of hogs is well known to be unwholeſome in that country, where they are fed differently from what they are in Europe; and, it is probable, experience of this ſort induced the Eaſtern legiſlators, Moſes and Mahomet, to forbid its uſe by an article in their reſpective codes of laws. Lepra ſeems to be communicated from one perſon to another by bedding and other means of cloſe contact. Elephantiaſis is not contagious: it attacks the legs and ſcrotum, and is confined chiefly to thoſe perſons who work in the rice-grounds, and live in marſhy ſituations. At Damietta great numbers are affected with this diſeaſe in different degrees; on the other hand, ſcarcely any are met with in dry airy places, as on the borders of deſerts, or in Upper Egypt. Lepra, on the contrary, rages in theſe latter places, and was never ſeen where elephantiaſis is common. The ſame prediſpoſing cauſes belong to both maladies; but, in elephantiaſis, the immediate application of bad air and bad water to the feet and legs may determine the ſeat of its attack, by injuring the texture of the ſkin and cellular ſubſtance. An enlargement of the ſcrotum often attends this diſeaſe of the legs; theſe tumours conſtitute the diſorder called *ſarcocele*, in the true and ſtrict meaning of the word; it is not uncommon in warm climates, though comparatively rare in Europe. Tumours of this nature grow ſometimes to an enormous ſize, even to an hundred pounds weight; the author removed one weighing ſix pounds: when cut into, they are found to conſiſt of a fatty brawny ſubſtance, of hard conſiſtence in ſome parts, and ſoft in others, not very vaſcular, and endowed with little ſenſibility: the teſticles are ſometimes diſeaſed, conſtituting a complicated malady; but, in general, theſe parts are in a ſound ſtate, attached behind or on the ſides of the tumour, the ſpermatic cord being only increaſed in length. Women, as well as men, are liable to have tumours of this ſort on the organs of generation; a hiſtory of a large excreſcence on the labia pudendi is given, with a plate, and an account too of a ſimilar diſeaſe in the ſcrotum of a man, which is likewiſe repreſented by an engraving. Both theſe caſes were to have been operated on, when orders were received to march immediately, and they were unfortunately obliged to be left to their fate.

During a ſhort interval of peace and tranquillity, M. Larrey began to arrange and put in order the obſervations that he had made from the beginning of the firſt campaigns in Egypt. Theſe remarks are collected together and recorded under the article *Surgery*, a ſeparate and diſtinct part from the hiſtorical narrative, and occupying one ſection of the book. Before noticing this, however, we ſhall ſtop juſt to tranſlate the author's deſcription of the treatment of the venereal diſeaſe. "I remarked (ſays he) that ſyphilis in Egypt was ſeldom attended with violent ſymptoms, and was eaſily cured there; but, if brought thence into Europe, eſpecially into the weſtern countries, it became extremely obſtinate, and very difficult to be ſubdued. I have had proofs of this among the French ſoldiers who came to France with the diſeaſe contracted in Egypt; they could not get rid of it without great difficulty, and after a long time. The treatment which ſucceeded beſt in Egypt conſiſted in the exhibition of mercury internally, combined with tonics and diaphoretics, and aided by vapour baths. Mercurial frictions were hurtful; they did not only not cure the diſeaſe, but produced violent frenzy in ſome patients, and ſpaſms, and convulſions, and profuſe ſalivation, in others.

"In a memoir which I propoſe ſoon to publiſh, I ſhall make known what great advantages I have often derived from the inoculation of gonorrhœa, for the cure of many maſqued venereal complaints, in Egypt and at the hoſpital of the conſular guard."

Almoſt all the wounds from fire-arms received in Syria, on the upper extremities, complicated with fracture, eſpecially of the os humeri, were followed by artificial articulations, although carefully dreſſed and attended. This unfortunate circumſtance was attributed to the continual motion to which the wounded men were expoſed from their leaving Syria till their arrival in Egypt, being obliged to travel on foot, or mounted on horſes or camels: *2dly*, To the bad food and brackiſh water which they were obliged to drink during this laborious journey, and alſo to the bad air of Syria, loaded with effluvia from marſhes. In this campaign, very ſlight wounds on the ſhoulders, without any injury done to the bone, were ſucceeded, in almoſt every inſtance, by partial or complete paralyſis of the wounded limb; a circumſtance which never happens in Europe, unleſs, indeed, the principal nerves are divided or materially injured. On returning to Egypt, where the air is more pure, the motion and feeling of the paralytic limbs were reſtored to many of the wounded by the repeated application of moxa, afterwards applying ammoniac to prevent the inflammation and ſuppuration of the burnt parts. The uſe of mineral waters, and the climate of Europe, completed the cure in thoſe inſtances where the moxa had failed. The unfavourable influence of the atmoſphere, and of the ſouth winds, on the wounds in Syria and in Egypt, was compenſated in ſome degree by the rapid manner in which ulcers and wounds were healed in Egypt during the ſeaſon when the northern winds prevailed.

The application of the trephine on the frontal ſinus has been forbidden by moſt writers. M. Larrey deviated from this precept in two caſes of fracture of the ſides of this ſinus; the trepan was applied without much difficulty, and the operation ſucceeded perfectly well. Several ſingular caſes are related of wounds of the head, jaws, and parts of the throat. Wounds of the cheſt afforded ſome remarkable phenomena, and they were in ſufficient number to offer ſufficient opportunities for new experiments. In one recent caſe Mr L. ſucceeded beyond his expectations: A man was wounded between the fifth and ſixth rib; the wound was about two inches in length, and penetrated into the cavity of the thorax: a large quantity of red frothy blood iſſued out at every inſpiration; his extremities were cold, his pulſe ſcarcely perceptible, his countenance pale, and his breathing ſhort and difficult; in ſhort, he was threatened every moment with ſuffocation. After examining the wound, the lips were brought together and confined by means of ſticking plaſter and proper bandages. As ſoon as the wound was cloſed, the poor fellow breathed more freely, and felt himſelf relieved: he gradually recovered in a ſhort time, without any obſtacle to his cure. Two ſimilar caſes preſented themſelves at the hoſpital of the conſular guard. From the time of Ambroſe Parey down to the preſent day, all authors have adviſed not cloſing the wounds of the thorax, when accompanied by hemorrhage; but experience ſhows that the oppoſite method is preferable; and indeed this practice is noticed by the old writers. The operation of empyema was performed ſeveral times in Egypt with complete ſucceſs, to relieve effuſion of blood in the cheſt; and the author thinks it adviſable to make the opening ſomewhat higher than the ſpot uſually mentioned, becauſe the depth of the cavity of the thorax is diminiſhed by the preſence of any foreign body which irritates and cauſes the contraction of the arch of the diaphragm. This operation failed, in ſome inſtances, by being performed too low down, and the effuſed fluid was diſcovered on diſſection after death.

Some caſes of wounds of the abdomen, combined with injury done to the inteſtines and the bladder, which were perfectly cured, are here detailed. The colon was wounded at its ſigmoid flexure in ſeveral inſtances, and healed without leaving any fiſtula. In ſpeaking of the injuries done to the head of the humerus, without affecting the other parts of the arm, M. Larrey mentions the removal of the head of this bone, as practiſed by Meſſ. Park and White. Sabatier and Chauſſier, two of the moſt diſtinguiſhed ſurgeons in France, have lately paid particular attention to this ſubject: ſome experiments have been made on animals by the latter. M. Larrey has removed the head of the os humeri and its fractured portion in ten inſtances, by which meaſure he flatters himſelf to have prevented the unfortunate conſequences, perhaps the amputation of the limb; and he deſcribes minutely his method of performing this delicate operation.

He next gives an account of a ſtill more formidable operation, which, he ſays, he has performed three times; this is, *the amputation of the thigh at the hip joint.* We ſhall extract the account of the mode of performing this operation in the author's own words, and thus forego the neceſſity of copying his arguments to prove the poſſibility of it, and to ſhow its abſolute utility under particular circumſtances.

" Pour executer mon procédé, je mets d'abord le bleſſé ſur le pied de ſon lit dans une poſition preſque horizontale, et me place en dedans de la cuiſſe que je dois opérer: un aide vigoreux et intelligent comprime l'artére crurale, à ſon paſſage ſur la gouttière oſſeuſſe du méme nom: enſuite je fais une inciſion aux tégumens de l' aine ſur le trajet des vaiſſeaux cruraux que je mets au decouvert; je les diſſèque avec précaution, et apres avoir iſolé le nerf qui ſe trouve en dehors, je paſſe entre lui et l' artére une aiguille courbe mouſſe, de manière à y comprendre l' artère et la veine pour les lier enſemble. J'ai l'attention de porter cette ligature immédiate au deſſus de l'arcade crurale, pour la faire au-deſſus de l' origine de la muſculaire commune, dont la ſection, pendant l'operation, cauſeroit, ſans cette meſure, des hemorragies mortelles. Après avoir fait cette ligature, et placé celle d' attente, je plonge perpendiculairement mon couteau droit entre les tendons des muſcles qui s' attachent au petit trochanter et la baſe du col du femur, de manière à faire ſortir la pointe à la partie poſterieure ou diamétralement oppoſée, et en dirigeant le couteau obliquement en dedans et en bas, je coupe d' un trait toutes les parties qui doivent former le lambeau interne, auquel il ne faut pas donner trop de volume. Je fais relever le lambeau vers les parties génitales par un aide, et on découvre auſſitôt l' articulation. L'artère obturatrice et quelques branches de la honteuſe, ſont compriſés dans cette coupe, il faut en faire de ſuite le ligature. Un ſeul coup de biſtouri ſuffit pour couper toute la capſule articulaire, et, par une ſimple abduction de la cuiſſe, la tête du femur eſt preſque luxée; le ligament interarticulaire ſe preſente, et l'on juge combien il eſt facile de la couper avec le même biſtouri. Je prends enſuite un petit couteau droit, avec lequel je forme le lambeau externe et poſterieur, en paſſant ſon tranchant entre le bourrelet oſſeux de la cavité cotyloïde et le grand trochanter, et je finis le lambeau par une diviſion dirigée en bas et en dehors, faite à-peuprès au niveau de cette eminence et de manière à donner à ce lambeau une forme arondie ; l' aide qui tient le lambeau bouche l' orifice des artères ouvertes, des quelles on fait la ligature ſucceſſivement. Il faut les lier toutes, juſqu' aux plus petites, pour prévenir les hemorragies conſecutives, et pouvoir reunir les lambeaux. Si les parties qui les forment ne ſont point irritées, on peut y faire quelques points de ſuture entre coupés avec les aiguilées dont j' ai parlé : mais il ne faut point toucher les muſcles, il ſuffit de comprendre dans la ſuture la peau et le tiſſu graiſſeux. On fixe les lambeaux en contact par des compreſſe graduées, trempées dans le vin rouge, et par un bandage contentif et bien appliqué."—P. 283.

According to this method, M. Larrey has performed the operation three times ; the patient was always relieved, and every circumſtance, as far as regarded the operation, appeared to go on very favourably for ſeveral days; but one of theſe caſes terminated fatally from an attack of the plague on the ſixth day after the removal of the limb, and the other two periſhed during the fatigue and hardſhip of a forced march.

A memoir upon amputation of limbs wounded by fire-arms, which was the author's theſis on taking his doctor's degree, forms an intereſting concluſion to this chapter. The reaſoning is ſupported by numerous facts, and the queſtions are diſcuſſed with a conſtant reference to multiplied experience.

Among the various topics treated of in the two laſt ſections, the ſingular exemption of the dogs in Egypt from hydrophobia is mentioned. Such a dreadful malady is never known to attack theſe animals in that country, which is attributed to their peculiar character and different mode of life.

We ſhall conclude this article with quoting a general remark from a celebrated French writer, d'Alembert: "Un ouvrage eſt bon, lorſqu' il renferme plus de bonnes choſes que de mauvaiſes ; il eſt excellent, quand le nombre de ces bonnes choſes ſurpaſſe beaucoup celui de choſes mediocres." If this narrative be eſtimated by this fair ſtandard, it will be ranked among our beſt profeſſional works.

III.

A Treatiſe on the Proceſs employed by Nature in ſuppreſſing the Hemorrhage from divided and punctured Arteries; and on the Uſe of the Ligature; concluding with Obſervations on Secondary Hemorrhage; the whole deduced from an extenſive Series of Experiments, and illuſtrated by 15 *Plates.* By J. F. D. Jones, M. D. Member of the Royal College of Surgeons of London. 8vo. pp. 237. London. 1805.

Our curioſity, early attracted by the importance of the ſubjects announced in the title, has been amply gratified by the peruſal of this intereſting volume, which has left upon our minds very favourable impreſſions of the critical judgment of the author, as well as of his talent for experimental inquiry.

Few facts in phyſiology are more curious, or more intereſting to the naturaliſt, than thoſe which belong to the ſubject of animal reproduction: There are few of higher importance to the ſurgeon, for this knowledge points out to him, in many caſes, at once the object and the limits of his art. The proceſſes employed by nature in the reproduction and reunion of ſeparated parts are the faireſt ſubjects of experimental inquiry, and the labours of many ingenious men have accordingly been rewarded by the deriving of new and important facts. The obſervations and experiments of Duhamel, Haller, Troyes, and M'Donald; of Murray, Huhn, and Hunter; of Cruickſhanks and of Haighton, leave, indeed, little to deſire in the departments which they have examined.

From the moſt perfect reſtoration of a loſt or amputated part, to the cicatrization of the ſimpleſt wound, we obſerve a uniformity in the attempts of nature at reproduction, or a ſeries of analogous events, which expound to us the proceſſes of nature in the reproduction and reunion of the bones, and of moſt of the ſoft parts of animals. The proceſs employed by nature in ſuppreſſing the hemorrhage from divided arteries, though perhaps of all the moſt important to be fully underſtood, has not been ſo perfectly explained. Experiments and obſervations, indeed, have not been more neglected here; badly imagined, however, and limited in their direction, by the influence of ſome hypotheſis to be confirmed or refuted, they leave us ſtill uncertain of the truth. Some ſteps of the proceſs have been ſeen or affirmed, while others, equally important and efficient, have been overlooked

looked or denied. Limited obſervation, and the inclination to ſimplify the mechaniſm of nature, have led to theories founded on ſome one or other of the ſteps of the entire proceſs; and hemorrhage has been ſuppoſed to be naturally ſtopped by an obturating clot of blood, by the contraction and criſpation of the divided artery itſelf, or by the tumefaction or injection of the ſurrounding cellular ſubſtance. The limited theories of Petit, of Morand, and of Pouteau, gave riſe to other ſubordinate hypotheſes not more ſatisfactory. Diſtruſting, then, theſe reſults of partial obſervation and of haſty conjecture; to arrive at the truth, it was neceſſary again to conſult nature herſelf, and by a ſeries of obſervations and experiments, carried on through every ſtage of the proceſs, from the firſt effuſion of blood to the natural ſuppreſſion of the hemorrhage, and complete cicatrization of the wounded artery, to mark the various changes which take place, and the order in which they ſucceed: a taſk which has been undertaken and executed, with equal zeal, ability, and ſucceſs, by Dr Jones.

The experiments are numerous, but not redundant; they are well imagined, ſkilfully executed, and, to all appearance, faithfully related. The reſults are alſo exhibited in 15 neat engravings. The experiments are compared with, and his obſervations are afterwards illuſtrated and confirmed by thoſe of other eminent phyſiologiſts and ſurgeons: For the error of his predeceſſors ſeems to have been chiefly that of ſeizing excluſively one ſtep of the proceſs of nature which they really did obſerve, and of haſtily concluding that they had nothing farther to look for. So far, indeed, as they did obſerve, their obſervation was correct and accurate; but this being limited to ſome particular period of the proceſs, they differently ſaw the correſponding ſteps of a ſeries of changes, which really conſtitute the proceſs of nature in ſuppreſſing the hemorrhage from divided or wounded arteries.

Dr Jones having examined and freely expoſed the defects of Petit, Morand, Sharp, Pouteau, Gooch, Kirkland, and J. Bell, proceeds in the relation of a ſeries of experiments on the arteries of horſes and dogs, undertaken with the view of aſcertaining the proceſs employed by nature in the ſuppreſſion of hemorrhage from *divided* arteries, and the order of the events which conſtitute it. In theſe experiments the larger arteries were completely divided; the ſuppreſſion of the hemorrhage was left to nature, and the condition of the divided veſſel was, in the different caſes, aſcertained by careful examination, at different periods, after the firſt ceſſation of the hemorrhage. Though we muſt refer to the original for a full detail of thoſe experiments, we ſhall here quote the following as examples.

EXPERIMENT VII.

'The femoral artery of a dog was divided, and the integuments were brought together, as in Experiment II., the ſection of the artery being made as high as it was detached. Half an hour after the hemorrhage had completely ceaſed, the dog was drowned.

'Diſſection. A conſiderable clot of blood was found between the integuments and the artery, covering both of its cut extremities, and adhering to the lower, and to the parts about it: the extremities of the artery were nearly an inch diſtant from each other: a black cylindrical coagulum was found ſtopping up the mouth of the upper extremity, and extending at leaſt one third of an inch down from it, and between the vein and nerve. The mouth of this extremity was ſlightly contracted. The diviſion of the artery appeared to have been made immediately at its connexion with the cellular membrane; this appearance was, no doubt, rendered more complete by the retraction which had taken place. There was an effuſion of blood between the artery and its ſheath, to the extent of at leaſt two inches: there was alſo a conſiderable effuſion in the ſurrounding cellular membrane; but the artery had not the ſlighteſt appearance of being compreſſed by it. On cutting open this part of the veſſel, a long and very ſlender coagulum of blood was found within it, which by no means filled up its canal at any part, nor adhered to the internal coat of the artery. Hereafter I ſhall call this the internal coagulum, to diſtinguiſh it from the external.

About four lines breadth of the inferior portion of the divided artery was detached from the ſurrounding cellular membrane; its mouth was much more contracted than the upper, and was ſlightly turned on one ſide; it adhered to the clot, which filled the wound, and lay over it; and the internal coagulum was very ſlender and thready.'

EXPERIMENT XVII.

'The carotid artery of a horſe was divided juſt above a ligature, which had been made on it to prevent hemorrhage from that portion of it next the heart, and the integuments were ſecured by ſutures previouſly paſſed. The blood flowed too faſt at two or three interſtices, but theſe were cloſed by additional ſutures, and the external hemorrhage preſently ceaſed. A very large tumour inſtantly formed, but its ſize conſiderably diminiſhed in the courſe of twenty-four hours. The animal was killed ſixty-ſix hours after the operation.

'Diſſection. The clot, which originally filled the cavity of the wound, and diſtended the integuments, had nearly diſappeared, having been either waſhed away by the diſcharge or abſorbed. The ends of the artery were ſeparated between one and two inches. The ſheath was tinged with blood to the extent of many inches. To the circumference of the cut artery, and juſt within it, the external coagulum, conſiſting partly of lymph, partly of blood, adhered. Its figure was conical, and it was ſupported at the mouth of the artery by its intimate connexion with the inner lamina of the ſheath, which, by the retraction of the artery, formed a canal for it; and it derived farther ſupport, on all ſides, from the blood effuſed and coagulated between the inner and outermoſt lamina of the ſheath. The internal coagulum was an inch and a half long, correſponding to the diſtance between the external coagulum and the firſt collateral branch. It completely filled the canal of the artery, and had every appearance of having been formed ſoon after the operation. It was quite detached, and lay two inches above the external coagulum, having, in all probability, ſlipped from its original ſituation in handling the parts previous to the artery being opened. See plate II. fig. 2.'

EXPERIMENT XIX.

'The femoral artery of a dog was divided, and the integuments were brought together in the manner already deſcribed. The animal was killed nine days after the operation.

'Diſſection. The wound was open, but its extent much diminiſhed. Its ſurface was formed of a thick layer of very vaſcular lymph, which, being divided, diſcovered the truncated extremities of the artery half an inch apart. The cellular membrane ſurrounding each extremity of the artery, for the ſpace of an inch, was very much thickened with coagulated lymph. The ſuperior portion of the artery was ſlightly contracted at its extremity, which was completely cloſed, and filled up with lymph. From this cloſed extremity extended, about two lines breadth, a ſmall rounded whitiſh ſubſtance, of the conſiſtence of jelly, which, probably, was the remains of the external coagulum not yet abſorbed. Within this portion of artery we found a ſmall conical coagulum of blood, attached at its baſe to the lymph that cloſed the mouth of the artery, but not adhering to, nor even appearing to touch, any other point of its internal ſurface.

'The inferior extremity of the artery was much more contracted than the ſuperior, its termination being very diſtinctly of the figure of a cone. On cutting it open, we found its mouth completely contracted, and adhering to the lymph that cloſed it. An internal coagulum, ſimilar to that of the ſuperior portion of the artery, was attached to this lymph. The coats of both portions of the artery were very much thickened. See plate I. fig. 4.'

Not one but a variety of circumſtances conſpires in the natural ſuppreſſion of the hemorrhage from *divided* arteries. The divided artery retracts and contracts; the force of the circulation, after the firſt impetuous flow of blood, is gradually weakened and reduced; the blood is effuſed into the cellular ſubſtance, and the ſheath within which the divided artery had retracted; the effuſed blood is here entangled, and the foundation laid for the formation of a coagulum, which fills the ſheath and cellular membrane, and eventually cloſes up the mouth of the artery;

and

and this, which is termed the external coagulum, is the firſt complete barrier to the effuſion of blood. "This coagulum, viewed externally, appears like a continuation of the artery, but, on cutting up the artery, its termination can be diſtinctly ſeen with the coagulum completely ſhutting up its mouth, and encloſed in its ſheath."

The next ſtep in the proceſs is the formation of the *internal* coagulum, the clot within the artery, a ſlender conical clot which lies looſe in the arterial canal, and connected with the artery only by its baſe, which, by its circumference, is ſlightly attached to the divided extremity of the veſſel. The formation of this internal coagulum, however, appears to be merely a contingent event in the proceſs, and depends on the ceſſation of the circulation in that part of the artery which lies between the firſt collateral branch and the divided extremity, after that extremity has been cloſed, and the hemorrhage ſtopped by the external coagulum. The figure and ſize of the internal coagulum vary according to the remoteneſs of the firſt collateral branch, and where this goes off very near to the divided extremity of the artery, the internal clot is often not to be found. "The *internal* coagulum contributes nothing to the ſuppreſſion of hemorrhage in ordinary accidents, becauſe its formation is uncertain, or, when formed, it rarely fills the canal of the artery, or, if it fills the canal, does not adhere to the internal coat of the artery."

Soon after, there is obſerved, between the external and internal coagula, a layer of coagulable lymph, poured out by the inflamed veſſels of the cut extremity of the artery, to the internal coat of which this coagulum of lymph is firmly united. And now, by the gradual contraction of the artery, and by the effuſion of lymph, theſe parts become intimately blended together; the canal of the artery is obliterated, and its extremity loſt in the ſurrounding parts. Thus, the *temporary* ſuppreſſion of the hemorrhage is accompliſhed by the retraction and contraction of the artery, and by the formation of the coagula, or clots of blood; *permanent* ſecurity is afterwards obtained by the effuſion, conſolidation, and organization of coagulable lymph. The artery, however, gradually undergoes other changes: "Its obliterated extremity no longer allowing the blood to circulate through it, the portion which lies between it and the firſt lateral branch is no more diſtended and excited to action as formerly, but gradually contracts, till at length its cavity is entirely obliterated, and its condenſed tunics aſſume a ligamentous appearance." "At the ſame time, the remarkable appearances at the extremity of the artery are undergoing a conſiderable change; the external coagulum of blood, which, in the firſt inſtance, had ſtopped the hemorrhage, is abſorbed in the courſe of a few days, and the coagulating lymph which had been effuſed around it, and had produced a thickened and almoſt cartilaginous appearance in the parts, is gradually removed, and they again appear more or leſs completely reſtored to their cellular texture.”

Such is the outline of the proceſs employed by nature for the ſuppreſſion of hemorrhage from *divided* arteries, as more fully deduced by our author from his own experiments and obſervations, and which he very happily illuſtrates and confirms by a judicious expoſition and criticiſm of ſome of the obſervations of Pouteau, Kirkland, Morand, Gooch, Haller, and others.

Let us conclude, then, with Dr Jones, that “we can no longer conſider the ſuppreſſion of hemorrhage as a ſimple, a mere mechanical effect, but as a proceſs prepared by the concurrent and ſucceſſive operations of many cauſes: Theſe may be briefly ſtated to conſiſt in the retraction and contraction of the artery, the formation of a coagulum at its mouth, the inflammation and conſolidation of its extremity by an effuſion of coagulable lymph within its canal, between its tunics, and in the cellular ſubſtance ſurrounding it.”

We now paſs to the 2d chapter of this treatiſe:—“On the means which nature employs for ſuppreſſing hemorrhage from *punctured* or *partially divided* arteries; and on the proceſs of reparation which takes place in thoſe arteries.”

The common conſequence of a punctured artery, in man at leaſt, is the formation of aneuriſm; and the experiments of this chapter were originally inſtituted with the view of aſcertaining the manner in which aneuriſm is produced, and with little hope of witneſſing the complete and perfect reunion of a partially wounded artery. But Dr Jones found it very difficult to produce aneuriſms in the arteries of horſes and dogs; on the contrary, he diſcovered that, when the artery was ſimply punctured, the wound often cicatrized by a proceſs of reparation, its canal continuing pervious, and its functions entire; or, when a larger portion of the circumference of the artery was wounded, that either the canal of the artery became obſtructed, or that a complete diviſion took place by laceration or ulceration.

We ſhall take the 6th of this ſeries of experiments as an example of the cicatrization of a punctured artery.

EXPERIMENT VI.

“The carotid artery of a dog was laid bare, and a longitudinal wound made in it with a lancet, without removing it at all from its ſituation or ſurrounding attachments; a profuſe hemorrhage followed; the integuments were ſewed up as quickly as poſſible, and ſoon after they were found diſtended with blood, and the hemorrhage ceaſed.

"Nine days after this experiment the animal was killed, and, on examining the parts, the external wound was found to be very nearly healed. Its ſurface was formed by a vaſcular layer of lymph. The artery was injected from the aorta, and the injection paſſed very readily through it. As it had been wounded anteriorly, I cut open its poſterior part, immediately oppoſite to the wound. The canal of the artery and the injection were very ſlightly narrowed juſt at this part; the coats of the artery and the ſurrounding cellular membrane were very much thickened. On picking away the portion of injection which paſſed through this part of the artery, the longitudinal wound was ſeen to be completely cicatrized. There was a collateral branch filled with injection on one ſide of it, and on the other a very thin lamina of lymph adhering to the internal ſurface of the artery. See plate V. fig. 3."

But if theſe animals had been longer preſerved, if they had fully recovered their blood and health, if they had been allowed to return to their wonted freedom and exerciſe, might not theſe cicatrized arteries have dilated into aneuriſms? However this may be, the proceſs of cicatrization, as deduced from theſe experiments, appears to be this:—The ſheath becomes injected with blood; the relative poſition of the puncture in the artery and in the ſheath is altered, ſo that they no longer oppoſe each other; a layer of coagulated blood is confined by the ſheath over the puncture in the artery, and forms the *temporary* barrier to farther hemorrhage. Lymph is now effuſed under the coagulum of blood, and the proceſs of reparation is completed in the uſual way, till permanent ſecurity is obtained.

Though it appears, from Dr Jones's experiments, that the punctured arteries of brute animals may thus be cicatrized, and their functions preſerved entire, we are not to flatter ourſelves with equal ſucceſs in the ſurgery of wounded arteries in man. Although there is ſuch an appearance of cicatrix in a caſe quoted from Petit, we perfectly agree with Dr Jones, that in the treatment of a wounded artery, "in every caſe in which it can be done, it is beſt to tie the artery above and below the wounded part, and to divide it between the ligatures."

Chapter 3d:—"On the operation of the ligature; ſhowing that its immediate effect is to divide the middle and internal coats of an artery which gives riſe to the adheſive inflammation."

The experiments contained under this head are novel, and highly intereſting. In theſe, after expoſing the arteries, ligatures were paſſed round them, and tied in the uſual way, but, immediately afterwards, looſened and withdrawn; the freedom of circulation was inſtantly reſtored, and the blood paſſed through the artery as before the application of the ligature. Yet, very ſhortly after, the artery became obſtructed, and was eventually cicatrized for ſome way above and below where the ligature had operated, and that as effectually as if the ligature had been ſuffered to remain. The proceſs by which this is brought about ſeems to conſiſt of the following parts: The internal and middle coats of the artery are torn or divided by the ligature, an obſervation firſt made by Deſſault, and confirmed by Mr Thomſon and by Dr Jones; the divided coats inflame; coagulable lymph is poured out ſo abundantly as to obſtruct the arterial canal; above and below this obſtructing coagulated lymph there are formed internal clots, or coagula of blood, as far as the firſt collateral branches, which complete the obſtruction, and at length all this portion of the artery becomes cicatrized, with the circumſtances more fully expoſed by our author in the next chapter, "On the proceſs of adheſion, and the changes which an artery finally undergoes, in conſequence of the application of the ligature."

In the experiments undertaken with a view to the inveſtigation of this proceſs, the ligatures were applied in the uſual manner, and allowed to remain, the artery being, in ſome, divided between two ligatures, and allowed to retract, and, in other caſes, left undivided.

From the whole of Dr Jones's experiments, it appears that the effects of tying an artery properly are,

1ſt, To cut through the internal and middle coats of the artery, and to bring the wounded ſurfaces into perfect oppoſition.

2d, To occaſion a determination of blood on the collateral branches.

3d, To allow of the formation of a coagulum of blood juſt within the artery, provided a collateral branch is not very near the ligature.

4th, To excite inflammation on the internal and middle coats of the artery by having cut them through, and conſequently to give riſe to an effuſion of lymph, by which the wounded ſurfaces are united, and the canal is rendered impervious; to produce a ſimultaneous inflammation on the correſponding external ſurface of the artery, by which it becomes very much thickened with effuſed lymph; and, at the ſame time, from the expoſure and inevitable wounding of the ſurrounding parts, to occaſion inflammation in them, and an effuſion of lymph, which covers the artery, and forms the ſurface of the wound.

5th, To produce ulceration in the part of the artery round which the ligature is immediately applied, viz. its external coat.

6th, To produce indirectly a complete obliteration not only of the canal of the artery, but even of the artery itſelf, to the collateral branches on both ſides of the part which has been tied.

7th, To give riſe to an enlargement of the collateral branches.

A knowledge of the changes which an artery undergoes, in conſequence of the application of the ligature, explains to us, at the ſame time, its occaſional failure, and inſtructs us how to avoid ſome of the cauſes of ſecondary hemorrhage; thoſe, at leaſt, which depend on the improper form and application of the ligature. And, with ſome very pertinent remarks on this ſubject, Dr Jones brings his treatiſe to a cloſe.

It is proved by ſome experiments of Dr Jones, that, to produce thoſe changes in the artery which terminate in the adheſion of its coats and obliteration of its canal, which it is our object to attain by the proper application of the ligature, it is neceſſary that the internal and middle coats of the artery be completely divided by the ligature; and hence that form and mode of application, which are beſt calculated to produce this requiſite diviſion of the internal coats, muſt be preferred. Large flat ligatures are therefore improper; round ligatures, which are ſmall and ſufficiently firm, are preferable; they ſhould be perfectly regular. No part ought to be included in the ligature but the artery. Care ſhould be taken to tie the ligature with ſufficient force, and always as nearly as poſſible in the direction perpendicular to the axis of the artery. The artery itſelf ſhould, in every caſe, be as little as poſſible detached from the neighbouring parts; and, if experience has diſcovered any advantage in the mode of tying and dividing the artery between two ligatures, Dr Jones is diſpoſed to think that this advantage conſiſts in the artery being tied cloſe to the part at which its connexion with the ſurrounding cellular membrane is complete; whereas, when a ſingle ligature is uſed, a conſiderable portion of the artery is detached, and the ligature, perhaps, applied in the centre; or, if applied at the upper end, ſtill there remains a conſiderable portion of detached artery below it.

From the foregoing analyſis, our readers will be enabled to anticipate the general merits of this excellent treatiſe. To us it appears a work of uncommon merit, and we doubt not our judgment will be confirmed by every one who, after an attentive peruſal, conſiders the unuſual labour beſtowed upon it, the great number of facts contained in it, the excellence of the plan by which all thoſe facts are arranged, the preciſe and accurate developement of the moſt important proceſſes, of which very inadequate and confuſed notions had been formerly entertained, and the induſtry and fidelity with which they have been illuſtrated by the ſcattered facts relating to theſe collected from the writings of others.

IV.

Chirurgical Obſervations relative to the Eye, with an Appendix on the Introduction of the Male Catheter, and the Treatment of Hemorrhoids. By JAMES WARE, Surgeon, F. R. S. &c. In two volumes. Vol. I. Second edition. 8vo. pp. 527. London. 1805.

THE ſubjects treated of in this firſt volume are the ophthalmy, pſorophthalmy, and purulent eye of new-born children; the epiphora, or watery eye; the treatment of fiſtula lachrymalis; the introduction of the male catheter; the treatment of hemorrhoids.

Theſe tracts, we need hardly inform our readers, have already, in another form, been before the public. They are here collected into one view, after having been reviſed and enlarged by Mr Ware, well known as an eminent practitioner in diſeaſes of the eye. The preſent, therefore, muſt be conſidered, in ſome meaſure, as a new book, of which, as a work of practical uſefulneſs, it is our duty to take ſome notice.

We have no fault to find with Mr Ware's general hiſtory of the cauſes and ſymptoms of ophthalmia. It is difficult, it is impoſſible perhaps, to communicate to others all the fruits of individual experience; to delineate all thoſe ſhades in the character of a diſeaſe which the experienced and enlightened practitioner is himſelf ſo well acquainted with, and which guides him ſo accurately in the choice of his means of cure. This is more eſpecially the caſe in ophthalmic inflammation, of the varieties of which, demanding correſponding varieties of treatment, we have ſtill to regret the want of preciſe and accurate deſcriptions. Whoever has had occaſion to obſerve the frequent errors committed by routine practitioners in the miſapplication of ſome of the moſt powerful auxiliaries, and to compare their failures and blunders with the ſteady ſucceſs obtained by the more enlightened and diſcriminating oculiſt in the happier choice of his indications and remedies, will acknowledge how inſufficient it is, for the purpoſe of inſtruction, to enumerate in ſucceſſion merely all the remedies, general and topical, which may, in different caſes, or at different periods, be employed, without attempting ſome arrangement and deſcription of the varieties of the diſeaſe to which the particular modes of treatment are applicable. Such a diſcrimination of caſes would lay a foundation for that preciſion which we know to be attainable in the treatment of ophthalmic inflammation, but which is generally ſo little underſtood. And hence, indeed, ariſes the equivocal reputation of ſome of the moſt valuable remedies.

If the hiſtory of ophthalmia given by Mr Ware be too general, if difficult in the deſcription of their varieties, we muſt allow that he has added to the account of the difficult remedies ſome excellent practical obſervations, which may ſerve, in ſome meaſure, to ſupply this defect.

There are few external applications more ſtrikingly uſeful in certain ſtages of ophthalmia than the vinous tincture of opium, ſo highly recommended by Mr Ware. But it affords alſo an example of a remedy which may be eaſily abuſed. When prudently uſed, it not only procures great relief from pain, but greatly aſſiſts in diſſipating the inflammation itſelf. The method of uſing it is, to drop into the eye a ſingle drop of it once or twice a-day. This cauſes at firſt a ſharp pain, and copious flow of tears. But a remarkable degree of eaſe commonly ſucceeds; the inflammation abates, and is often entirely removed after a few applications of the tincture.

The thebaic tincture is uſed with the greateſt effect in the ſecond ſtage of ophthalmy, after the neceſſary evacuations have been premiſed. Uſed earlier, it is leſs beneficial, and, in ſome caſes, rather hurtful, eſpecially where the eyes appear ſhining and gloſſy, and feel exquiſite pain from the rays of light. Even in ſuch caſes, however, Mr Ware informs us, the application is ſometimes found to ſucceed; "and whether it will or not, can only be determined by making the trial, which is attended with no other inconvenience than the momentary pain it gives." "When it is found to produce no good effect, the uſe of it muſt be ſuſpended, until evacuations, and other proper means, have diminiſhed the exceſſive irritation; after which it may be again applied, and bids equally fair for ſucceſs as in thoſe inſtances in which it never diſagreed."

In ſcrofulous and intermittent ophthalmiæ, where, with no very great appearance of inflammation, the pain both of the head and eye continues violent, and is ſubject to remit, and ſometimes wholly to intermit, Mr Ware has found the internal uſe of the muriate of mercury very uſeful, and he now recommends it in preference to all other remedies, even to Peruvian bark. It has often ſucceeded with him in caſes where the cinchona had failed. He has alſo found the internal uſe of the muriate of mercury ſingularly uſeful in ſeveral caſes where the ophthalmy followed putrid and nervous fevers. "The inflammation in theſe caſes, though ſmall in appearance, is generally attended with a deep-ſeated pain in the orbit, which is much increaſed during the night, with a peculiar dulneſs in the tranſparent parts of the eye, and with conſiderable general debility."

In another variety of ophthalmia, which is accompanied with ſneezing and coughing, and in peculiarly irritable eyes, very ſmall doſes of opium, or of cicuta, given once or twice a-day, have been found uſeful.

A topical application, of great efficacy in many caſes of chronic ophthalmy, is the unguentum hydrarg. nitrati, or an ointment prepared with the red nitrate of mercury, in the proportion of one-eighth part. This ointment is peculiarly uſeful where the edges of the tarſi are ulcerated, where the inflammation is kept up by the irritation of the ſecretion from theſe parts; in moſt caſes where, from the long continuance of inflammation, the veſſels of the eye have become relaxed and weakened, and where ſpecks are beginning to form on the cornea. We have uſed the application with excellent effect alſo in more recent caſes, after ſcarification of the conjunctiva of the eyelids, eſpecially in the ophthalmy of ſcrofulous children, and in that which is a ſequelæ of eruptive diſorders.

'It is a queſtion of no ſmall moment,' ſays Mr Ware, 'and perhaps has not been ſufficiently attended to by ſurgeons, whether a *lotion* ſhould be applied to the eye warm or cold. It has been a uſually received opinion, that warm applications relax and weaken thoſe parts to which they are applied; and, on the contrary, that cold applications have a tendency to brace and ſtrengthen them. But though this obſervation be ſometimes juſt, it is by no means univerſally true. Weakneſs is not unfrequently the reſult of pain; and whatever removes pain in the ſame proportion contributes to give ſtrength. Weakneſs, again, is ſometimes occaſioned by too great fulneſs, not merely in thoſe veſſels which convey red blood, but likewiſe in the lymphatic veſſels, and often alſo in the glands that are connected with the ſurface of the body, and the ducts that carry off the ſecretion of theſe glands; and whatever tends to diminiſh the fulneſs of theſe parts, or to carry off the ſubſtances that are morbidly lodged in them, contributes in the ſame proportion to increaſe their ſtrength. In ſome of theſe ways, I preſume, it is that the application of hot water to the eye is frequently uſeful, not only when it is in a ſtate of inflammation and pain, but when the ciliary glands are enlarged, and when they ſecrete an acrimonious or glutinous humour; which humour adhering to the orifices of the ducts, as it paſſes through them, forms more or leſs of gum on the edges of the eyelids, and cauſes them to ſtick together when they have been long in contact. Weakneſs, again, is ſometimes the reſult of too great tightneſs or ſtiffneſs in thoſe elaſtic parts which are formed for a greater or leſs degree of contractible action; and whatever tends to reſtore the power of contraction of theſe parts contributes to increaſe their ſtrength, and promote their uſefulneſs. In this way, I account for the utility of the application of hot water when the eye feels morbidly dry, and alſo when it begins to loſe its power of accommodating itſelf to the view of near objects; a change which takes place in moſt eyes that are not naturally ſhort-ſighted, as perſons advance in life, and which, it is probable, in ſome degree depends on the too great tenſion of the cornea, and its inability to acquire that increaſed convexity which it is neceſſary it ſhould have, in order to enable it duly to refract the rays of light when they come from near objects. Uſeful, however, as hot applications undoubtedly often are, it ſhould not be forgotten, on the contrary, that in thoſe caſes when the weakneſs of the eye is accompanied with a morbid ſecretion of tears, without much inflammation, and ſometimes in thoſe alſo where the lachrymal ſecretion is accompanied with an increaſed acrimonious diſcharge from the ciliary glands, which diſcharge excoriates the edges of the eyelids, and makes them adhere together when they have been long in contact, as during the time of ſleeping, cold applications, and thoſe which poſſeſs a degree of aſtringency, ſuch as the zincum vitriolatum, ceruſſa acetata, lapis tutiæ, and lapis calaminaris, (and particularly five or ſix grains of the zinc. vit. mixed with an equal quantity of the ceruſſa acetat. and four ounces of the aq. flor. ſambuci) have often afforded very eſſential aſſiſtance. But in the compoſition of all remedies for the eye, where inſoluble bodies are employed, whether they be in the form of ointments, or in that of lotions, it is of great importance always to remember, that they ſhould be reduced to an impalpable powder; and, in general, it is deſirable that aqueous mixtures ſhould be paſſed through filtering paper, before they are ſent to be uſed by the patient.'

The applications recommended for ſpecks or opacities of the cornea, which admit of any remedy, are the diluted ſolution of the muriate of mercury, the citrine ointment, the ointment prepared with the red nitrate, and a powder compoſed of one-eighth part of alum mixed with white ſugar, and diviſion of blood-veſſels, where they are obſerved to feed the ſpeck.

There is a very curious change of figure to which the cornea is ſometimes, though very rarely, liable; it loſes its round figure, and acquires a conical, or ſugar-loaf ſhape, in conſequence of which, viſion becomes myopical, imperfect, and confuſed; the apex of the cone is ſometimes obſcured by a ſpeck, without any preceding ophthalmy. The opacity may be removed, but the morbid projection is ſeldom got the better of. The cornea has been punctured, and the aqueous humour evacuated by Mr Ware; after which he has attempted to contract the morbid propenſity by compreſſion, but without any good effect.

> 'The greateſt relief I have hitherto given,' he continues, 'has been by the application of a few drops of a ſtrong infuſion of tobacco ; by a perſeverance in the uſe of which remedy three or four times a-day, the conical appearance of the eye has, in a few inſtances, been diminiſhed, and the patient's ſight greatly mended.'

After a violent ophthalmia, viſion is ſometimes obſcured by a depoſition of matter in the anterior chamber of the aqueous humour of the eye. Not unfrequently this matter is gradually again abſorbed, as the inflammation is diſſipated, or this abſorption may be afterwards promoted by ſtimulating applications to the eye. If, however, the collection of matter is not ſoon made to diſappear, and eſpecially if it rather appears to increaſe, Mr Ware ſtrongly urges the propriety of diſcharging it by an inciſion of the cornea, and even of repeating the operation, if neceſſary. He cautions us againſt delaying the operation, as ſuch delay, if continued for any conſiderable time, may end in the deſtruction of the cornea, and, of conſequence, the irrecoverable loſs of ſight.

We think, however, that Mr Ware has eſtimated this operation too lightly ; and we believe that there is more danger from ſuch early inciſion, and evacuation of the matter, than is here inſinuated. The eye is ſtill in a diſeaſed ſtate, the internal inflammation is not ſubdued, if the matter is on the increaſe ; and the inciſion of the cornea, under ſuch circumſtances, is likely to aggravate all the ſymptoms, and to haſten the total deſtruction of the eye.

Scarpa decidedly condemns this operation, on account of the dangerous conſequences which experience has ſhown to reſult from it. He proſcribes it altogether, and adviſes us to truſt to the remedies employed for the cure of ophthalmia ; if the healthy ſtate of the organ be reſtored, the matter will be gradually abſorbed.

> 'Il eſt certain,' ſays Scarpa, 'que les moins verſés dans le traitement des maladies des yeux, ſe perſuaderont que le moyen le plus prompt, le plus efficace de traiter l'hypopion devenu ſtationaire dans la ſeconde periode de l'ophthalmie aiguë grave, doit être d' inciſer la cornée dans la partie inferieure, afin de donner bientôt iſſue à la matière contenue dans les chambres de l' humeur aqueuſe, d' autant plus que c' eſt la doctrine le plus communément enſeignée dans les écoles de chirurgie. Cependant l'experience prouve le contraire ; elle demontre que rarement la ſection de la cornée, dans ces circonſtances, eſt ſuivie d' un bon ſucces, et que le plus ſouvent elle occaſione des maux plus facheux que l'hypopion lui-même, malgre la modification ſuggérée par Richter, de ne pas vider tout d' un coup la ma-

tière de l'hypopion, ni d' en ſolliciter l' iſſue par l' ouverture de la cornée, à l' aide des compreſſions repetées, ou des injections; mais de laiſſer ſortir lentement, et d' elle-même, cette lymphe tenace. D' apres un nombre aſſez conſiderable d' obſervations ſur ce ſujet, il me paroit reſulter que, quelque petite que ſoit l'ouverture pratiquée au bas de la cornée, pour donner iſſue à la matière de l'hypopion, elle reproduit le plus ſouvent l' ophthalmie grave aiguë, et qu' auparavant de lymphe concreſcible dans les chambres de l' œil ; et quand bien même encore, après la ſection de la cornée, on permettoit à la matière de l' hypopion de ſortir d' elle même lentement et goutte à goutte, puiſque elle eſt tenace, il lui faut pluſieurs jours avant qu' elle ſoit entièrement evacuée. Pendant ce tems, la lymphe glutineuſe maintien dilatées les levres de la place, les force à ſuppurer :—il en reſulte un ulcère de la cornée, lequel l' humeur aqueuſe, ſituée derrière la lymphe tenace et concreſcible, s' écoule, et, après elle, on voit ſortir au travers de l' ulcère de la cornée, un lambeau de l' iris, et quelquefois encore le cryſtallin vient s' y preſenter.'—

Mr Ware concludes his firſt tract on ophthalmy with a few obſervations on pterigion and trichiaſis.

By *pſorophthalmy*, which is the ſubject of the next eſſay, is underſtood an acrimonious puriform diſcharge from the edges of the eyelids. The ſeat of the diſeaſe ſeems to be the ſebaceous glands, and thoſe ducts which open on the inner edges of the eyelids. In conſequence of inflammation and ulceration, the ſecreted fluid, inſtead of being moiſt and mild, and ſerving as a defence againſt the acrimony of the tears, is changed into a ſharp, acrid, and adheſive humour, which cauſes a conſtant irritation of the eye and lids, ulcerates the inner edges of the latter, and, for want of proper attention, has often perpetuated the diſorder for a great number of years.

The diſeaſe is often diſtreſſing, and does not yield to any general remedies, or to common treatment. Mr Ware's principal deſign in this tract is to recommend an application which he has found very ſucceſsful, Unguent. Hydrar. Nitrat. of the laſt London Diſpenſatory. A little of the melted ointment muſt be rubbed into the edges of the affected eyelids once in twenty-four hours. Our experience confirms the character of this application. But we have more frequently uſed the unguent. hydrarg. nitrat. rub. and think it equally effectual.

The *purulent* eyes of new-born children is a diſeaſe of very formidable appearance, and, if neglected or improperly treated, actually becomes ſuch. It much reſembles the gonorrhæal ophthalmy, by the ſwelling of the eyelids, and the profuſe puriform diſcharge from the whole ſurface of the adnater, and too often has terminated in the total deſtruction of the eye. There is no method ſo effectual in checking the puriform diſcharge, and obviating the dangerous tendency of the diſeaſe, as the application of aſtringent lotions to the whole ſurface of the eyeballs. And the remedy particularly recommended by Mr Ware, from experience of its ſuperior uſefulneſs, is a ſolution of the ſulphate of copper, as preſented in the Aqua Camphorata of Bate's Diſpenſatory.

It is made as follows:

℞ Vitriol. Roman.
Bol. Armen. á á ℥ iv.
Camphor. ℥ j.

Ft. Pulvis, de quo projice ℥ j. in aquæ bullientis ℔ iv, Amove ab igne, et ſubſidant fæces.

This is to be uſed in the proportion of two drachms to an ounce of water. The moſt effectual way of applying it is to inject it between the eyelids by means of a blunt conical-pointed ſyringe. This injection ſhould be frequently repeated; in bad caſes once or twice every hour; the ſtrength of the injection to be increaſed according to circumſtances. In this diſorder, where the ſwelling and inflammation are conſiderable, it is proper alſo to leech the temples, and employ bliſters. But our chief reliance is on the aſſiduous uſe of the injection. It becomes us to obſerve, that this remedy has been equally ſucceſsful in the hands of others; and that Scarpa, in treating of the cure of this diſeaſe, does little more than copy from Mr Ware, though without doing him the ſame juſtice, or making the ſame acknowledgment, which he has done in ſpeaking of the vinous tincture of opium.

The diſeaſe known by the name of *epiphora*, or watery eye, acknowledges a variety of cauſes, and, according to theſe, the appropriate treatment muſt neceſſarily be varied. The deſign of our author's eſſay on this ſubject is principally to exhibit the advantage to be obtained in certain caſes from the practice of Anel, of injecting through the puncta lachrymalia fluids into the lachrymal ſac, with the view of overcoming the obſtruction to the paſſage of the tears into the noſe, and of obviating the cauſes of that obſtruction. This obſtruction, which, if neglected, eventually terminates in fiſtula lachrymalis, may be produced by a thickening of the membrane lining the ſac, by the lodgment of inſpiſſated mucus, or by ſpaſm, or all together. In theſe caſes Mr Ware has experienced great benefit from injecting through the inferior punctum, by means of Anel's ſyringe, warm water, weak ſolutions of ſulphate zinc, warm or cold, according to circumſtances.

Mr Ware's method of treating the *fiſtula lachrymalis*, we believe, is pretty generally known in this country. It conſiſts in the inſertion of a ſmall ſilver ſtyle into the naſal duct, which is worn by the patient with little inconvenience, until the parts recover the power of carrying on their uſual functions.

The ſtyle was firſt employed by Mr Ware to open and dilate the naſal duct, with the view of eſtabliſhing a future paſſage for the tears after its removal. But he ſoon had the good fortune to obſerve, that its good effects were more immediate than he had expected. The watering of the eye almoſt wholly ceaſed as ſoon as the ſtyle was introduced, the tears paſſing freely into the noſe. The neatneſs and ſimplicity of this practice are great recommendations, and the experience of Mr Ware of its utility has been confirmed by others who have given it a trial.

With regard to his obſervations on the *introduction of the male catheter*, it appears to us that he might ſave himſelf a great deal of trouble, by introducing the inſtrument, from the beginning, with its concave ſide towards the pubis.

When *hemorrhoidal tumours* have become highly diſtreſſing, and no relief can be obtained by the uſual modes of treatment, recourſe has been had to the knife or ligature for their complete removal, an operation painful, and not eaſily practicable, where the whole anus is beſet with a maſs of painfully inflamed piles. If theſe be accurately examined, it will commonly be found that the principal diſtreſs proceeds from one or two of the tumours more ſwelled and painful than the reſt; and the intention of our author's obſervations is to ſhow, that it is generally ſufficient to remove the hard inflamed tumour which is the cauſe of the pain, and which is not unfrequently ſituated in the centre of the reſt; all of which, he aſſures us, collapſe and diſappear after the exciſion of the principal one.

The method recommended is to ſecure the tumour with a common diſſecting hook or forceps, and to ſnip it off, as cloſe to its baſe as poſſible, with a ſharp pair of curved ſciſſars.

V.

Letters to Dr Rowley on his late Pamphlet, entitled, "Cow-Pox Inoculation no ſecurity againſt Infection." By Aculeus. 8vo. London. 1805.

Dr Rowley did not deſerve a ſerious anſwer. His folly, not to uſe a harſher term, is expoſed in theſe letters in a ſtrain of indignant irony.

VI.

VI.

The Anatomy and Surgical Treatment of Inguinal and Congenital Hernia. By ASTLEY COOPER, F. R. S. &c. &c. Illuſtrated by Plates. London. 1804. Large folio. L. 2, 2s.

THIS work is already ſo well known that ſome of our readers may think it unneceſſary at this time to take notice of it; but the merits of the author, and the importance of the ſubject, induce us to give a ſhort analyſis, and to make a few curſory remarks on its contents.

The object of Mr Cooper, in the preſent volume, is to give the anatomical deſcription and ſurgical treatment of inguinal and congenital hernia, leaving the conſideration of femoral, and the other ſpecies, to a future publication.

There is no diſeaſe where minute anatomical diſſection has been more ſucceſsfully employed than in the pathology and treatment of hernia; for as this complaint ariſes more from an alteration in the relative ſituation of organs than from any morbid change of ſtructure, we muſt be well acquainted with the natural appearances in order to diſcriminate the effects of diſeaſe, or be able to point out the beſt means of affording relief.

Although Albinus ſeems to have been well acquainted with this part of anatomy, yet it is to Gimbernat, a celebrated Spaniſh ſurgeon, to whom we are indebted for the firſt accurate and detailed deſcription of the *abdominal*, and ſtill more particularly of the *crural* rings.

Mr Cooper, beſides availing himſelf of the deſcription theſe anatomiſts have given, advances a ſtep farther, and deſcribes ſome of the more minute parts of the anatomy of the abdominal ring with much preciſion and ingenuity. Neither Mr Cooper, however, nor, as far as we know, any other anatomiſt, has paid ſufficient attention to a deſcription of the bones of this part of the pelvis, when deſcribing the ſoft parts; for we have long believed that an accurate knowledge of them will lead to a ſimple deſcription, and give a clear notion of the ſoft parts with which they are connected. If we examine theſe bones, we find a ridge extending from the inferior part of the *venter* of the ilium, which forms the lateral parts of the brim of the pelvis, and the line of diviſion between the pelvis and abdomen, called *linea innominata*;

nominata; and there is alſo another line or ridge, which begins at the rough creſt or angle of the os pubis, and extends along the upper and inner edge of the bone to meet the former. The junction of the two ridges, in ſome ſubjects, is diſtinctly marked; but, in moſt bones, a ſmall portion of the edge is rounded at that part where the femoral veſſels paſs out of the pelvis. Although theſe two ridges have been deſcribed long ago by anatomiſts, yet they do not ſeem to have explained their uſe, or conſidered them in the deſcription of the ſoft parts. It will be found, however, that the pubic portion is intended for the inſertion of the inflected part of the ligament of Poupart, called Gimbernat's ligament, and the iliac portion for the attachment of the aponeuroſis of the iliac, pſoic, and abdominal muſcles. This knowledge of the bones, and of the different parts of them into which the aponeurotic and tendinous fibres are inſerted, enables us to form a clear and diſtinct notion of the relative ſituation of parts, and to be aware of the raſhneſs with which particular names have been given to continuations or parts of one faſcia, or of the ſame aponeurotic expanſion.

The oblique paſſage of the ſpermatic cord through the abdominal parietes was well known to and elegantly delineated by Albinus. Nevertheleſs, no author, except Mr Cooper, has conſidered it with that attention which it ſeems to merit. After having minutely deſcribed this beautiful piece of mechaniſm, he points out, with a good deal of ingenuity, the neceſſity of taking it into conſideration, in order to explain particular ſymptoms and varieties of inguinal hernia, to accompliſh the reduction of hernia, and alſo in the application of truſſes.

There is one part of the anatomy of which our author has not taken notice. It is the difference of the relative ſituation of the ligament of Poupart in the male and female. In Mr Cooper's deſcription no other difference is mentioned, than that the abdominal ring ſerves for the paſſage of the ſpermatic cord in the male, and of the round ligament in the female. Dr Monro jun. has obſerved a remarkable difference in the formation of theſe parts in the two ſexes, and he has deſcribed it accurately, and delineated it in his work on femoral hernia. It may be ſufficient here to mention, that this difference accounts very ſatisfactorily for the greater frequency of femoral hernia in the female than in the male, and for the rare occurrence of inguinal hernia in the female.

The next part of Mr Cooper's work treats of the pathology of hernia. He deſcribes the manner in which the ſac is formed, its ſize, mode of deſcent, coverings of faſcia, cellular ſubſtance, and, as he calls it, cremaſter muſcle. He alſo takes particular notice of the ſituation of the ſpermatic cord, and mentions two varieties, in one of which, inſtead of the hernial ſac paſſing on the outſide of theſe veſſels, it was found on their inner or pubic ſide. In the other inſtance, the vas deferens was found on the one ſide, and the reſt of the cord on the other ſide of the ſac.

The next chapter contains the diagnoſis and the enumeration of thoſe cauſes which moſt commonly produce hernia.

The ſubject of the fifth chapter is one of importance, and it is full of good practical information relative to the mode of action, application, and management of truſſes.

"The object in applying a truſs (ſays our author) is to cloſe the mouth of the hernial ſac, and deſtroy its communication with the abdomen; and this object can never be perfectly fulfilled by any truſs which is applied in the uſual manner upon the abdominal ring, and extending from it upon the os pubis. In this caſe the cure muſt be incomplete, becauſe a conſiderable portion of the hernial ſac remains uncompreſſed toward the abdomen, which portion is that ſituated between the abdominal ring and the opening of the ſac into the cavity of the belly." He adds, "The proper method of completely obliterating the mouth of the hernial ſac is to apply the truſs, not upon the abdominal ring, but upon the part at which the ſpermatic cord, and with it the hernia, firſt quit the abdomen; for in this way only can a deſcent of the hernia be prevented entirely, and a cure by preſſure, if practicable, can be performed." "Therefore, when a hernia has been returned into the abdomen by the ſurgeon, he ſhould lay his fingers obliquely above and without the ring, and direct his patient to cough, and the furtheſt part from the ring towards the ſpine of the ilium, where the hernial ſac is felt to protrude, is the point which ſhould be noted for the application of the pad of the truſs, and the inſtrument made accordingly."

Theſe remarks are no leſs ingenious than important. There are two circumſtances, however, which appear to us to be of ſome moment, although they have not been taken notice of by our author. They regard the ſtrength of the ſpring, and the form and ſize of the pad. It will be found that a perſon who has worn a truſs for many years is not able to give up uſing it, chiefly on account of the ſtrength of the abdominal muſcles being diminiſhed at that part where the pad reſts. The preſſure of the pad ſeems to produce an abſorption of the abdominal parietes. As this effect will always be in proportion to the degree of preſſure or ſtrength of the ſpring, it is of importance never to employ in any caſe a ſpring ſtronger than what is neceſſary to keep up the bowels; and it is uſeful for a perſon labouring under hernia to have two truſſes of different ſtrengths, one for ordinary purpoſes, and the other when riding, or when taking any violent exerciſe. Our author adviſes that the pad be made of a conical form, the apex of which ſhould reſt on the internal ring or mouth of the ſac. However uſeful this may be as a general rule, it ought to be known that there are many exceptions; and, with due deference to Mr Cooper's opinion, we beg leave to mention, that we have found ſuch a variety, not only in the ſize of the rupture, but alſo in the ſituation and ſize of the opening through which it paſſes, that we apprehend it will be neceſſary to vary the form and bulk of the pad according to every individual caſe. If the pad is too large and flat, it will prevent the bowels from paſſing through the external ring, but it will allow them to paſs through the internal ring, and enter the inguinal canal. On the other hand, if the pad is ſo ſmall as to preſs into the mouth of the ſac, and plug it up, there is no longer any chance of a permanent cure. The bowels may be prevented from entering the ſac, but the pad will act as a dilator or bougie, keep the mouth of the ſac continually open, and even increaſe its diameter. It therefore appears to us, that, in every caſe of reducible hernia, a pad ought to be made according to the ſize and ſituation of the ring; that it be of ſuch bulk and form as to make a preſſure on the *internal* abdominal ring, along the *inguinal* canal, and on the *external* ring.

IRREDUCIBLE HERNIA.

" The following are the cauſes which ſeem to bring the diſeaſe into this ſtate.

1. When the protruded parts are ſuffered to remain long down, they increaſe ſo much in ſize as to be incapable of reduction.

2. When membranous bands form acroſs the ſac, entangle its contents, and prevent its free motion.

3. When the protruded parts become cloſely united by an adheſion to the ſide of the ſac ſufficiently firm to render them immoveable."

The moſt efficacious means recommended by our author to accompliſh the reduction of a hernia in this ſtate, is to wear a bag truſs of ſuch a form as to keep a ſteady and uniform preſſure on the ſcrotum. The preſſure produces a gradual abſorption of the adipoſe matter of the protruded bowels, and thus, after ſome days confinement, the tumour becomes very much diminiſhed, and at laſt may be returned. The application of ice occaſionally procures the return of a hernia which appears irreducible. Mr Cooper thinks that the good effects of this remedy are owing to its producing a contraction of the ſcrotum, which performs the office of a ſtrong and permanent compreſſion of the tumour, and he relates two caſes where this practice proved ſucceſsful.

OF

OF STRANGULATED HERNIA.

"If the tumour be examined after death, a quantity of clear ſerum will firſt be found under the ſkin. The hernial ſac contains a portion of bloody ſerum of a coffee colour. The inteſtine is of a chocolate brown, with here and there a black ſpot, which eaſily breaks down on being touched with the finger. A coat of the coagulable lymph, of the ſame colour as the inteſtine, may be peeled from its ſurface, and adheſions of no great ſtrength are found to extend from the inteſtine to the ſac. At the particular part where the inteſtine is ſtrangulated by the conſtricting membrane, it is either ulcerated through, or readily pulls aſunder under ſlight preſſure. If the inflammation has been very extenſive, there is a quantity of air in the ſurrounding cellular membrane."

"On examination after death, in ſtrangulated omental hernia, the omentum is found ſcarcely changed from its natural appearance; its colour is a little, and but a little, darker than uſual. I found it in ſome caſes, even during the operation, extremely offenſive to the ſmell; there is ſcarcely any fluid in the ſac. Though the cavity of the abdomen is inflamed, and the inteſtines ſlightly adhering to each other, they never appear to have ſuffered ſo much as by inteſtinal hernia." In old and large herniæ, Mr Cooper believes that the ſtrangulation is formed moſt frequently by the external abdominal ring; but, in other caſes, it is more commonly ſeated at the internal ring, the place where the ſpermatic veſſels quit the abdomen. "So if the ſurgeon, during the operations for hernia, examines accurately into the ſeat of the ſtrangulation, he will find, except in large herniæ, cutting through the ring is inſufficient to relieve the protruded parts, but he muſt proceed with his knife farther up towards the ſpinous proceſs of the ilium, before he can return the ſwelling."

"Moreover, though the abdominal ring be dilated with freedom, the hernia will, in many caſes, ſtill retain its colour of ſtrangulation, and remain irreducible, as before; but if the ſac be traced upwards with the knife, about one inch and a half, midway between the ilium and pubis, the ſtricture will there be found; and, when this is divided, the inteſtine recovers its colour, and can be readily returned."

TREATMENT OF STRANGULATED HERNIA.

The firſt object of our attention, in order to accompliſh the reduction of a ſtrangulated hernia, ought to be the poſition of the body of the patient. The celebrated Winſlow, the firſt anatomiſt who explained many of the phenomena of diſeaſe from a previous knowledge of the action of the muſcles, conceived it to be of importance that the body of the patient be placed in an inclined plane, and that the thighs be bent towards the trunk of the body. Our author adviſes the ſame practice, and remarks that ſuch a poſture, by relaxing the faſcia of the thigh, relaxes alſo the aperture through which the hernia paſſes. There is no doubt but every degree of tightening or relaxation of the femoral faſcia will be accompanied by a correſponding change in the abdominal ring; but the motion of flexion, while it relaxes the faſcia, relaxes at the ſame time the abdominal internal iliac and pſoi muſcles, and it is the change produced by the relaxation of theſe muſcles which facilitates, and ought to be kept in view in the reduction of hernia. To be convinced of the truth of this obſervation, it is only neceſſary to obſerve in the dead body, when in a horizontal poſture, the ſize of the crural ring. By introducing into it the fore-finger, a tight cord is readily felt at the upper part; when the thigh is bent upwards and inwards, the cord is relaxed, and the opening is enlarged.

The preſſure which is employed on the tumour by the hands of the ſurgeon ſhould always be directed upwards and outwards along the courſe of the canal of the cord, and our author adviſes it to be continued from a quarter to half an hour; beſides the mechanical means, he recommends tobacco gliſters and cold as the moſt ſucceſsful in diminiſhing the increaſed action and bulk of the parts. Cold applications have been approved of by the moſt celebrated ſurgeons, and they have been particularly recommended by Mr B. Bell in the form of ice: when ice cannot be procured, our author uſes a mixture of equal parts of nitre and ſal-ammonia. To one pound of water in a bladder ten ounces of the mixed ſalts are added, the bladder tied up, and then laid over the tumour. "If, after four hours, the ſymptoms become mitigated, and the tumour leſſens, this remedy may be perſevered in for ſome time longer; but if they continue with unabated violence, and the tumour reſiſt every attempt to reduction, no farther trial ſhould be made of the application."

OPERATION.

There is not a more difficult point in ſurgery, or one which requires more deciſion, than to determine the exact period when recourſe muſt be had to the operation. From the dreadful conſequences of delaying it till the protruded parts mortify, ſome eminent ſurgeons have recommended its early performance, whilſt others, from the ſeverity and riſk which always attend it, adviſe it to be delayed till every means have failed of procuring a reduction.

Thoſe who urge the early performance of the operation (more particularly Deſſault) have founded their opinion on the effects of a ſimilar operation, when there is no hernia, or when the hernia is recent; for, in ſuch caſes, no ſerious conſequences are to be apprehended, or any ſymptoms likely to occur more violent than what takes place after the common operation of hydrocele by inciſion; on the other hand, many caſes have occurred, where, after repeated trials had been made to accompliſh a reduction, and the operation about to be performed, the bowel has been ſuddenly and unexpectedly reduced.

The ſymptoms which ought to guide us in having recourſe to the operation ariſe from an attack of inflammation in that part of the inteſtine contained in the hernial ſac, and from its ſpreading into the abdominal cavity. It is in proportion to their violence, and after every fair and probable means has been employed, that we ought to urge the performance of the operation. Mr Cooper conſiders pain on preſſing the belly, and tenſion, as the ſymptoms which point out its immediate neceſſity. He adds, page 27, "Indeed, there is ſcarcely any period of the ſymptoms which ſhould forbid the operation; for even if mortification has actually begun, the operation may be the means of ſaving life, by promoting the ready ſeparation of gangrenous parts."

Mr Cooper has explained at great length the different ſteps of the operation. He directs the inciſion to be made from the upper part of the abdominal ring to the bottom of the hernial ſac. We are warned, however, by Camper againſt making this extent of inciſion downwards, for it ſometimes happens that the ſpermatic veſſels paſs on the anterior part of the ſac, and are very apt to be divided.

The ſac is to be opened at its inferior part by pinching it up with a pair of forceps, and cutting the elevated portion horizontally with a ſcalpel.

We witneſſed, in one caſe, a ſurgeon very much perplexed when he came to this ſtep of the operation. The ſac had a blue tranſparent colour, and looked very like a piece of ſtrangulated inteſtine; the ſurgeon, for ſome time, conceived that it actually was ſo, and at laſt opened it with the utmoſt terror, when, to his ſurpriſe, he found it to be a thin hernial ſac, much diſtended with water. We have ſeen the ſame puzzling appearance in the operation for hydrocele by inciſion, and it is one we may expect to find when either the hernial ſac or tunica vaginalis is thin.

In order to divide the ſtricture, "the ſurgeon paſſes his finger into the ſac as far as the ſtricture, and then conveys a probe-pointed biſtoury on the fore part of the ſac, and, inſinuating it within the ring, cuts through it in a direction upwards, oppoſite to the middle of the ſac."

Mr Cooper thinks there is an advantage from not dividing the *hernial ſac* in dilating the ring, as it takes away all danger from wounding the inteſtine; he alſo makes ſome uſeful remarks on caſes where there was more than one ſtricture.

OF MORTIFICATION OF THE BOWELS.

The next chapter contains many uſeful practical obſervations on the mortification of the bowels, and on the artificial anus; alſo ſome very intereſting and ingenious experiments of Mr Thomſon of Edinburgh, relative to the mode of tying two portions of divided inteſtine.

It appears from Mr Thomſon's experiments, that if the inteſtine of an animal be divided tranſverſely, reunited by ligatures, and returned into the abdomen, the animal ſuffers no inconvenience, and the ligatures are diſcharged at the anus.

"However (ſays Mr Cooper), as the protruded parts in hernia are ſo much inflamed as to endanger a ſpeedy ſeparation of the ligatures, and as it appears from my experiments (page 35.) that the animal did not ſuffer from the ligature hanging from the abdomen, I ſhould ſtill prefer performing the operation of uniting the divided inteſtine in ſuch a manner as to give an opportunity of extracting the ligatures, if any inconveniences aroſe from their application."

Since Mr Cooper's work appeared, an eſſay has been publiſhed at Philadelphia by Mr Smith, which contains a ſeries of ingenious experiments on the wounds of inteſtines. The concluſions he has drawn we ſhall quote in his own words.

"It appears from the reſult of my experiments on dogs, that not only the inteſtine may be returned into the cavity of the abdomen, but that the ligatures may be cut off and returned with the inteſtine, as was obſerved by Mr Thomſon of Edinburgh, and that we need not be under any apprehenſion of their being diſcharged into the cavity; for, by ſome proceſs of the animal economy of which we are ignorant, the ligatures have, in every inſtance, either been diſcharged with the fæces, or been found looſely attached to the *internal* coat of the inteſtine.

"It has been ſaid by Meſſ. Cooper and Thomſon, that there is a curious difference in the facility with which a longitudinal and tranſverſe wound unites. But, in all the experiments which I have made, it was found that, with care, the *longitudinal* united as kindly as the tranſverſe, only requiring a little more attention to the diet of the animal, which ſhould be very ſparing and liquid, until the wound has had time to heal. It certainly requires more pains to cloſe a longitudinal wound completely than one which is tranſverſe. The longitudinal inciſion always occaſions a diminution in the diameter of the inteſtinal canal, thereby producing dangerous obſtructions. If it be of any conſiderable extent, probably the ſurgeon would be juſtified in cutting out the wounded portion, and treating it as a tranſverſe diviſion. This may be done without much endangering the life of the animal, as appears by two experiments, where three inches of the inteſtine were removed *."

Mr Cooper next proceeds to give ſome account of the mode of dreſſing, and after treatment of the patient. He particularly takes notice of the impropriety of giving ſtrong purges, if an evacuation can be procured by more gentle means. He enjoins the patient to be kept in a horizontal poſture till the cure is complete, and ſhows the neceſſity of wearing a truſs during the reſt of his life.

The object of ſome writers to produce a radical cure by tying the mouth of the ſac, Mr C. conſiders as ineffectual and dangerous. Although the opening of the peritoneum is ſhut up by ſuch an operation, the dilatation of the abdominal ring muſt ever remain open.

OF LARGE HERNIA.

Under this head our author records two important caſes of large hernia, in one of which the bowels were reduced, after dividing the ſtricture, without opening the ſac; in the other the ſac was opened. The firſt patient recovered, the ſecond died.

Theſe caſes, and the concluſions which our ingenious author has drawn from them, preſent to practical ſurgeons a point worthy of their mature conſideration, Whether ought we, in general, to open the hernial ſac? This mode of operation was firſt propoſed by Dr Monro ſen. and ſeveral caſes are related in the appendix to his work on the burſæ mucoſæ, where it was performed moſt ſucceſsfully.

OF SMALL HERNIA.

Our author remarks, that it is by no means unfrequent to meet with caſes of hernia where the hernial ſac is ſo ſmall as not to extend through the abdominal ring; and as in ſuch there is little appearance of external tumour, the diſeaſe is very apt to

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* Vide an Inaugural Eſſay on wounds of the inteſtines for the degree of doctor of medicine, ſubmitted to the examination of the Rev. J. Andrews, D. D. Provoſt (pro tempore), the Truſtees and Medical Profeſſors of the Univerſity of Pennſylvania, June 1805. By Thomas Smith, of the iſland of St Croix.

to be overlooked by the patient and ſurgeon, and ſome other cauſe aſſigned for the ſeries of ſymptoms. The manner of operating in this form of the diſeaſe differs from that in the common ſcrotal hernia: the inciſion is to be made parallel to the direction of the ſpermatic cord, and the ſtricture will be found at the internal ring.

OF INGUINAL HERNIA ON THE INNER SIDE OF THE EPIGASTRIC ARTERY.

This variety of hernia, ſays Mr C. has now very often fallen under obſervation, and has been for more than 25 years deſcribed in the lectures delivered at St Thomas's and Guy's Hoſpitals.

The following note, which is tranſlated from Rougemont, the author of the French tranſlation of Richter's treatiſe on hernia, will alſo ſhow that this form of the diſeaſe has not only been *long* known and *well* underſtood on the continent, but the ſame mode of operation as Mr Cooper mentions has been adopted.

"After all theſe conſiderations, I conclude with Mr Deſſault, that the epigaſtric artery in inguinal hernia is commonly placed near the *internal* angle of the ring, and rarely towards the *external*. The caſes where that artery is placed at the external angle of the ring in inguinal hernia are very rare, and they do not happen unleſs when the viſcera eſcape on the inner part of the ring, and then the cord is placed to one ſide, and a little behind the ſac. I have had occaſion, two years ago, to obſerve this diſtribution on a dead body; I preſerved the preparation for ſeveral months, and ſhowed it to ſeveral profeſſional men."

Afterwards he adds,

"I believe, after what has been ſaid, that we may be allowed to conclude that we run leſs riſk of wounding the epigaſtric artery in cutting upwards and outwards, than in cutting upwards and inwards; that, in order to know exactly the ſituation of that artery, we ought to become acquainted with the relative ſituation of the ſpermatic cord and hernial ſac; and, ſuppoſing that this is impoſſible, *we ought to make the inciſion directly upwards, through the middle of the ſuperior edge of the ring.*"

OF CONGENITAL HERNIA.

The author, under this head, has nothing particularly intereſting to communicate, except a caſe deſcribed by Mr Foſter, where, on diſſecting carefully through the tunica vaginalis of the cord near the ring, a fluid eſcaped. "I then (ſays Mr F.) continued the inciſion to the bottom of the ſcrotum through the tunica vaginalis of the cord, and the tunica vaginalis teſtis, which I found to be one cavity, the edges of which being turned back on each ſide expoſed a hernial ſac pendent from the ring, and deſcending towards the teſticle." Mr Cooper adds, "The idea I have formed of this caſe is, that the tunica vaginalis, after the deſcent of the teſtis, became cloſed oppoſite to the abdominal ring, but remained open above and below it. That the inteſtines deſcended into the upper part, and elongated both the adheſion and tunica vaginalis, ſo as to form it into a bag, which deſcended into the tunica vaginalis below the adheſion, and becoming wide at its neck, though narrow at its fundus, it received a portion of inteſtine, which was too large either to be returned into the abdomen, or to retain its functions, whilſt it continued in the ſac."

The work is embelliſhed with eleven plates, illuſtrative of the anatomy and pathology of hernia. Theſe and the letter-preſs are in very large folio, and although this ſize adds to the ſplendour of the book, it renders it ſo importable, and ſo teazing and difficult to read, that we cannot help thinking, that if the ſame materials had been printed in a different form, and ſold at a more moderate price, it would have been more generally uſeful, and more within the reach of the great body of readers.

As drawings, we cannot help regretting that, ſituated as Mr Cooper is in the focus of the arts, he had not been fortunate enough in employing a more able draughtſman. To us they appear to be executed with great ſtiffneſs, formality, and labour; they ſeem not as they were drawings from the ſubject, but as copied from heavy braſs caſts.

When we compare them with Camper's drawings on the ſame ſubject, our Engliſh artiſt is completely eclipſed; Camper, with all the ſpirit and power of a maſter, expreſſes, with a ſingle well-choſen line, what Kirtland tries to do by a hundred.

As engravings, they are well executed, but they are loaded and heavy with much unneceſſary labour and ſuperfluous work. They are far from being the *chef-d'ouvres* of Heath, and ſeem to be indebted to him for nothing but his name.

Theſe remarks, however, apply only to the plates as works of art; with regard to their anatomical accuracy, we believe them to be true repreſentations, and certainly they will ever be conſidered as a uſeful addition to ſurgical anatomy.

From this outline we have given of Mr Cooper's work, we hope our readers will be enabled to form a general idea of its contents, and to appreciate its merits. The attentive practitioner will, we venture to ſay, find in it much uſeful practical information; and the opinions and ſcattered obſervations of former authors, and of illuſtrious teachers, are ſo well arranged and ſo judiciouſly collected, as ſufficiently to recommend the work to the careful peruſal of every deſcription of medical men.

PART III.

MEDICAL INTELLIGENCE.

ASSOCIATION FOR MEDICAL REFORM.

SEVERAL meetings of medical men having been lately held at Sir Joſeph Banks' for the purpoſe of reforming the profeſſion, the following letter has been drawn up by Dr Harriſon, with the view of collecting a more correct knowledge of the extent of the abuſes which prevail, and of the opinions of practitioners reſpecting the beſt means of correcting them, previous to an application to Parliament.

Soho Square, 4th March, 1806.

(CIRCULAR.)

I AM requeſted, by an aſſociation of medical men, who have held ſeveral meetings at the houſe of the Preſident of the Royal Society, for the better regulation of the practice of phyſic, and to whom Government has been pleaſed to grant free poſtage for this letter, and the anſwer you may be pleaſed to return to it, to beg the favour of your ſentiments, and thoſe of ſuch other gentlemen, in and out of the profeſſion, as you may have the goodneſs to conſult, by holding meetings of the faculty or otherwiſe, reſpecting the propriety of an application to Parliament to eſtabliſh the practice of phyſic in the hands of qualified perſons. It may not be improper to add, that it is not intended that the regular faculty now exiſting, of any denomination whatever, ſhould be ſubjected to the meaſures in contemplation. They are to be confined entirely to ſuch perſons as ſhall hereafter preſent themſelves for admiſſion. It is greatly to be lamented that the practice of medicine, in many parts of the kingdom, is now engroſſed by phyſicians and ſurgeons without diplomas, accoucheurs without education, and apothecaries and druggiſts who never ſerved any apprenticeſhip; while regular and able practitioners are diſpoſſeſſed of the ſtations which they ought to hold in ſociety, and are deprived of the emoluments due to the expenſe of their education.

To prevent a continuance of the manifeſt abuſe of public confidence, and to increaſe the reſpectability as well as the uſefulneſs of the faculty, are the leading conſiderations of the gentlemen who have met on this ſubject. They are deſirous, in the commencement of their undertaking, to communicate with, and to obtain the cooperation of reſpectable practitioners in all parts of the kingdom. I therefore beg leave to ſolicit your aſſiſtance in promoting a meaſure which is eminently calculated to benefit the community at large, as well as to improve the condition of medical men.

The general principle only can now be propoſed; its execution muſt be the reſult of much deliberation. It is proper, however, to acquaint you with two things; *1ſt*, That the ſcheme now under conſideration does not interfere with any of the rights or privileges of the Colleges of Phyſicians and Surgeons. *2dly*, That theſe learned bodies do not poſſeſs powers for regulating the practice beyond the diſtance of ſeven miles from London, whatever may be their good diſpoſitions for the benefit of ſociety at large; conſequently there exiſts no legal control over any perſon, however illiterate and ignorant, who ventures to aſſume the medical profeſſion beyond theſe limits.

In order to facilitate the communication of the neceſſary information, I have taken the liberty of ſubmitting to your judgment, and of requeſting anſwers to the queries ſubjoined. The arrangement of free poſtage having been unavoidably delayed, a very early return to this letter is earneſtly requeſted, to expedite the attainment of the deſired object in the preſent ſeſſion of Parliament.

I have the honour to be

Your faithful and very obedient, humble ſervant,

EDW. HARRISON.

⁂ *Pleaſe to addreſs your anſwers to Dr Harriſon, Horncaſtle, Lincolnſhire—under cover to the Right Honourable Nicholas Vanſittart, Treaſury, London.*

Firſt Query. Are you acquainted with any perſons in your diſtrict, who practiſe phyſic, and are at the ſame time known to be ſo deficient in medical ſcience and literature, that they may be conſidered incompetent to the reſponſibility they take upon themſelves?

2dly, What may be, in your opinion, the proportion of ſuch incompetent perſons, under the heads of phyſicians, ſurgeons, apothecaries, druggiſts, and practitioners in midwifery, compared to the number of thoſe whoſe education and talents render them deſerving of the confidence of their patients?

3dly, In particular, what may be the proportion of perſons uſually diſtinguiſhed by the appellation of quacks or empirics?

4thly, Do you find that the chymiſts and druggiſts, and other venders of drugs, are conſtantly ſupplied with medicines of ſuch qualities, and with preparations in ſuch a ſtate, as a due regard for the public ſecurity obliges you to require? And do any of thoſe perſons interfere with the practice of phyſic or ſurgery?

5thly, What alterations appear to be wanted in your circuit to render the practice of phyſic moſt uſeful to the community?

N. B. It is by no means wiſhed that the name of any incompetent perſon ſhould be mentioned in the anſwers to theſe queries.

ROYAL JENNERIAN SOCIETY, FOR THE EXTERMINATION OF THE SMALL-POX.

At a Special Meeting of the Board of Directors, held at the Central Houſe of the Society, No. 14. *Saliſbury Square, November* 25. 1805. *The Report of the Medical Council on the ſubject of Vaccine Inoculation having been laid before the Board,*

RESOLVED,—That the ſame be immediately printed under the direction of the Medical Council, and that they be requeſted to ſubjoin their individual ſignatures to the Report for publication.

(Extracted from the Minutes,)

CHARLES MURRAY, *Secretary.*

REPORT.

THE Medical Council of the Royal Jennerian Society, having been informed that various caſes had occurred which excited prejudices againſt vaccine inoculation, and tended to check the progreſs of that important diſcovery in this kingdom, appointed a Committee of twenty-five of their members to inquire, not only into the nature and truth of ſuch caſes, but alſo into the evidence reſpecting inſtances of ſmall-pox alleged to have occurred twice in the ſame perſon.

In conſequence of this reference, the Committee made diligent inquiry into the hiſtory of a number of caſes in which it was ſuppoſed that vaccination had failed to prevent the ſmall-pox, and alſo of ſuch caſes of ſmall-pox as were ſtated to have happened ſubſequently to the natural or inoculated ſmall-pox.

In the courſe of their examination the Committee learned that opinions and aſſertions had been advanced and circulated, which charged the cow-pock with rendering patients liable to particular diſeaſes, frightful in their appearance, and hitherto unknown; and judging ſuch opinions to be connected with the queſtion as to the efficacy of the practice, they thought it incumbent upon them to examine alſo into the validity of theſe injurious ſtatements reſpecting vaccination.

After a very minute inveſtigation of theſe ſubjects, the reſult of their inquiries has been ſubmitted to the Medical Council; and from the report of the Committee it appears,

I. That moſt of the caſes which have been urged in proof of the inefficacy of vaccination, and which have been the ſubjects of public attention and converſation, are either wholly unfounded or groſsly miſrepreſented.

II. That other caſes, brought forward as inſtances of the failure of vaccination to prevent the ſmall-pox, are now allowed, by the very perſons who firſt related them, to have been erroneouſly ſtated.

III. That the ſtatements of the greater part of thoſe caſes have been already carefully inveſtigated, ably diſcuſſed, and fully refuted, by different writers on the ſubject.

IV. That, notwithſtanding the moſt inconteſtable proofs of ſuch miſrepreſentations, a few medical men have perſiſted in repeatedly bringing the ſame unfounded and refuted reports and miſrepreſentations before the public; thus perverſely and diſingenuouſly labouring to excite prejudices againſt vaccination.

V. That in ſome printed accounts adverſe to vaccination, in which the writers had no authenticated facts to ſupport the opinions they advanced, nor any reaſonable arguments to maintain them, the ſubject has been treated with indecent and diſguſting levity; as if the good or evil of ſociety were fit objects for ſarcaſm and ridicule.

VI. That when the practice of vaccination was firſt introduced and recommended by Dr Jenner, many perſons who had never ſeen the effects of the vaccine fluid on the human ſyſtem, who were almoſt wholly unacquainted with the hiſtory of vaccination, the characteriſtic marks of the genuine veſicle, and the cautions neceſſary to be obſerved in the management of it, and were therefore incompetent to decide whether patients were properly vaccinated or not, nevertheleſs ventured to inoculate for the cow-pock.

VII. That many perſons have been declared duly vaccinated, when the operation was performed in a very negligent and unſkilful manner, and when the inoculator did not afterwards ſee the patients, and therefore could not aſcertain whether infection had taken place or not; and that to this cauſe are certainly to be attributed many of the caſes adduced in proof of the inefficacy of cow-pock.

VIII. That ſome caſes have been brought before the Committee on which they could form no deciſive opinion, from the want of neceſſary information as to the regularity of the preceding vaccination, or the reality of the ſubſequent appearance of the ſmall-pox.

IX. That it is admitted by the Committee, that a few caſes have been brought before them of perſons having the ſmall-pox, who had apparently paſſed through the cow-pock in a regular way.

X. That caſes, ſupported by evidence equally ſtrong, have been alſo brought before them of perſons who, after having once regularly paſſed through the ſmall-pox, either by inoculation or natural infection, have had that diſeaſe a ſecond time.

XI. That in many caſes, in which the ſmall-pox has occurred a ſecond time after inoculation or the natural diſeaſe, ſuch recurrence has been particularly ſevere, and often fatal; whereas, when it has appeared after vaccination, the diſeaſe has generally been ſo mild, as to loſe ſome of its characteriſtic marks, and, in many inſtances, to render its exiſtence doubtful.

XII. That it is a fact well aſcertained, that, in ſome particular ſtates of certain conſtitutions, whether vaccine or variolous matter be employed, a local diſeaſe only will be excited by inoculation, the conſtitution remaining unaffected; yet that matter taken from ſuch local vaccine or variolous puſtule is capable of producing a general and perfect diſeaſe.

XIII. That if a perſon bearing the ſtrongeſt and moſt indubitable marks of having had the ſmall-pox be repeatedly inoculated for that diſeaſe, a puſtule may be produced, the matter of which will communicate the diſeaſe to thoſe who have not been previouſly infected.

XIV. That, although it is difficult to determine preciſely the number of exceptions to the practice, the Medical Council are fully convinced that the failure of vaccination, as a preventive of the ſmall-pox, is a very rare occurrence.

XV. That of the immenſe number who have been vaccinated in the army and navy, in different parts of the United Kingdom, and in every quarter of the globe, ſcarcely any inſtances of ſuch failure have been reported to the Committee, but thoſe which are ſaid to have occurred in the metropolis, or its vicinity.

XVI. That the Medical Council are fully aſſured, that in very many places, in which the ſmall-pox raged with great violence, the diſeaſe has been ſpeedily and effectually arreſted in its progreſs, and in ſome populous cities almoſt wholly exterminated, by the practice of vaccination.

XVII. That the practice of inoculation for the ſmall-pox, on its firſt introduction into this country, was oppoſed and very much retarded in conſequence of miſrepreſentations and arguments drawn from aſſumed facts, and of miſcarriages ariſing from the want of correct information, ſimilar to thoſe now brought forward againſt vaccination, ſo that nearly fifty years elapſed before ſmall-pox inoculation was fully eſtabliſhed.

XVIII. That, by a reference to the bills of mortality, it will appear that, to the unfortunate neglect of vaccination, and to the prejudices raiſed againſt it, we may, in a great meaſure, attribute the loſs of nearly two thouſand lives by the ſmall-pox, in this metropolis alone, within the preſent year.

XIX. That the few inſtances of failure, either in the inoculation of the cow-pock or of the ſmall-pox, ought not to be conſidered as objections to either practice, but merely as deviations from the ordinary courſe of nature.

XX. That, from all the facts which they have been able to collect, it appears to the Medical Council that the cow-pock is generally mild and harmleſs in its effects; and no inſtance has come to their knowledge in which there was reaſon to admit that vaccine inoculation had of itſelf produced any new or dangerous diſeaſe, as has been ignorantly and unwarrantably aſſerted; but that the few caſes which have been alleged againſt this opinion may be fairly attributed to other cauſes.

XXI. That, if a compariſon be made between the effects of vaccination and thoſe of inoculation for the ſmall-pox, it would be neceſſary to take into account the greater number of perſons who have been vaccinated within a given time; it being probable, that within the laſt ſeven years, nearly as many perſons have been inoculated for the cow-pock as were ever inoculated for the ſmall-pox, ſince the practice was introduced into this kingdom.

XXII. That many well-known cutaneous diſeaſes, and ſome ſcrofulous complaints, have been repreſented as the effects of vaccine inoculation, when, in fact, they originated from other cauſes, and in many inſtances occurred long after vaccination, but that ſuch diſeaſes are infinitely leſs frequent after vaccination than after either the natural or inoculated ſmall-pox.

Having ſtated theſe facts, and made theſe obſervations, the Medical Council cannot conclude their report upon a ſubject highly important and intereſting to all claſſes of the community, without making this ſolemn declaration,

That, in their opinion, founded on their own individual experience, and the information which they have been able to collect from that of others, mankind have already derived great and incalculable benefit from the diſcovery of vaccination; and that it is their full belief, that the ſanguine expectations of advantage and ſecurity, which have been formed from the inoculation of the cow-pock, will be ultimately and completely fulfilled.

Edwd. Jenner, M.D. Preſident.
J. C. Lettſom, M.D. V. P.
John Ring, V. P.
Joſeph Adams, M.D.
John Addington
C. R. Aikin
Wm Babington, M.D.
M. Baillie, M.D.
W. Blair
Gil. Blane, M. D.
Iſaac Buxton, M. D.
Wm Chamberlaine
John Clarke, M. D.
Aſtley Cooper
Wm. Daniel Cordell
Richard Croft, M.D.
Tho. Denman, M.D.
John Dimſdale
Henry Field
Edward Ford
Joſeph Fox
Will. M. Fraſer, M.D.
William Gaitſkell
Will. Hamilton, M. D.
John Hingeſton
Everard Home
Robert Hooper, M.D.
Joſeph Hurlock
John Jones
Tho. Key
Francis Knight
E. Leeſe
L. Leeſe
William Lewis
William Liſter, M.D.
Alex. Marcet, M.D.
Joſeph Hart Myers, M.D.
James Parkinſon
Tho. Paytherus
John Pearſon
George Rees, M.D.
John Gibbs Ridout
J. Squire, M.D.
James Upton
J. Chriſtian Wachſell
Thomas Walſhman, M. D.
Robert Willan, M.D.
Allen Williams
James Wilſon
J. Yelloly, M. D.

JOHN WALKER, *Secretary to the Council.*

Report of the Surgeons of the Vaccine Inſtitution at the Public Diſpenſary of Edinburgh for 1805.

The Surgeons of the Vaccine Inſtitution at the Public Diſpenſary of Edinburgh have much pleaſure in reporting to the Managers that the inoculation for the cow-pock goes on with uninterrupted ſucceſs.

Since the laſt general meeting they have inoculated 1658, being 221 more than were inoculated during the former year, and making in all 5371 ſince the commencement of the inſtitution in February 1801.

In conſequence of ſome recent publications againſt vaccination, particularly aſſerting that it operates as a preventive of ſmall-pox only for four years, and that it produces new and dangerous diſeaſes, the Surgeons have lately examined perſonally a great number of thoſe children who were inoculated at this inſtitution in the beginning of the year 1801, and have found that many of them have, within theſe three months, been freely expoſed to the contagion of the natural ſmall-pox in ſeveral quarters of the city, where this loathſome diſeaſe has unfortunately been very prevalent, without having been infected; and they beg leave particularly to notice, that they have not found one ſingle inſtance, in which obſtinate eruptions, or any new and dangerous diſeaſes, have been produced in conſequence of the introduction among mankind of this mild preventive of the ſmall-pox.

Wm. Farquharson.
James Bryce.
Alex. Gillespie.
J. Abercrombie.

Account of Diſeaſes treated at the Public Diſpenſary, Carey-Street, from 30th November 1805, to 28th February 1806.

CHRONIC DISEASES.

	No. of Caſes.		*No. of Caſes.*
Cephalæa	15	Chloroſis	1
Vertigo	2	Hyſteria	8
Catarrhus Chronicus	67	Hypochondriaſis	1
Aſthma and Dyſpnœa	16	Epilepſia	3
Hœmoptyſis and Phthiſis	20	Paralyſis	4
Aſthenia	22	Amauroſis	1
Dyſpepſia	29	Rheumatiſmus Chronicus	34
Icterus	2	Lumbago	5
Conſtipatio	3	Pleurodyne	2
Hæmorrhois	5	Dyſphagia	1
Tabes Meſenterica	7	Blenorrhœa	1
Vermes	6	Aſcites	2
Enterodynia	9	Anaſarca	7
Diarrhœa	12	Rachitis	1
Nephralgia	2	Prolapſus Uteri	1
Dyſuria	7	Prurigo	3
Iſchuria	2	Scrophula	3
Hæmaturia	1	Impetigo	6
Menorrhagia	4	Purpura	1
Leucorrhœa	4	Scabies	12
Amenorrhœa	11		

ACUTE DISEASES.

	No. of Caſes.		*No. of Caſes.*
Typhus	1	Variola conferta	1
Ephemera	3	Pertuſſis	6
Quotidiana	1	Rheumatiſmus	11
Cynanche tonſillaris	9	Podagra	2
——— parotidæa	1	Arthritis rheumatica *	10
Hemicrania	2	Dyſenteria	10
Hydrocephalus	2	Peritonitis puerperarum	1
Epiſtaxis	1	Inflammatio pudendi	1
Catarrhus	73	Febris poſt Partum	1
Pneumonia	10	Eryſipelas	2
Peripneumonia notha	8	Febris Infantum	3

The ſeaſon has been, on the whole, extremely mild, and the rains much more frequent than is uſual at this ſeaſon of the year. The firſt ten days of December were moderate in temperature, with the wind from S. W. to N. W.; a froſt of ſix or ſeven days enſued; and the remainder of the month was wet, with ſome gales from the S. W. This weather continued to the end of January, with the exception of the 10th and 11th, on which a ſlight froſt and a heavy hail-ſtorm occurred. February was uſhered in by a few days of moderate froſt; but, ſince the firſt week, the temperature of the air has been mild, with occaſional ſhowers and light gales of wind.

The metropolis ſtill continues, in an extraordinary degree, free from epidemic and contagious diſeaſes. One caſe of typhous fever, and one caſe of confluent ſmall-pox, both of which occurred in December, are the only inſtances of contagious diſeaſe which have fallen under our notice, with the exception of a few caſes of hooping-cough among children. The prevalence of the ſmall-pox has diminiſhed greatly ſince our laſt report, and has been conſiderably leſs fatal.

The catarrhal complaints have been, as uſual, numerous; and aſthmatics have ſuffered very ſeverely. In the former part of the period comprehended by this report, the inſtances of pneumonia continued to be connected with ſymptoms of great debility, and in ſeveral caſes proved fatal from effuſion and conſequent ſuffocation. But, during the preſent month, caſes of peripneumonia notha have been leſs frequent.

The moſt common form of the ſtomach complaints which appear at the Diſpenſary is the gaſtrodynia, or ſtomach-colic. This is a ſevere burning or ſtabbing pain about the region of the ſtomach, generally returning at intervals, but frequently, without any complete intermiſſion; and is accompanied with a loathing of food, occaſionally with vomiting, and often with that peculiar diſcharge of a clear watery fluid from the ſtomach which has been conſidered by Dr Cullen as a diſtinct genus of diſeaſe, under the title of pyroſis, or water-braſh. There is generally alſo a tendency to conſtipation.

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* Sauvages Nosol. Chap. VII. Ord. I. Spec. 3.

In one of the inſtances, in which this pain was accompanied with extreme irritability of ſtomach, which rejected almoſt every thing for ſeveral days, and for many weeks bore very little, a numbneſs and debility of the fingers, firſt of one hand, and afterwards of the other, reſembling the partial paralyſis from lead, took place; this gradually increaſed, till the whole of both arms became abſolutely paralytic, accompanied with great pains in the limbs and back. I muſt make my acknowledgments to Dr Hamilton * for the relief which I have been able to afford this patient. The bowels were not greatly conſtipated; the ſtools, however, were black, offenſive, and of unhealthy conſiſtence; and by frequent exhibitions of doſes of about gr. iii. of calomel alone (for ſhe bore this when every other medicine was rejected), the ſtomach was gradually brought to conſiderable ſtrength, the pains have ceaſed, and the elbows and wriſts have greatly recovered their motion; the fingers, however, remain conſiderably paralyzed. Whenever ſhe neglected her bowels for two or three days, the irritability of ſtomach threatened to return, her pains increaſed, and her limbs became obviouſly more uſeleſs. It may be obſerved, that ſhe has had electric ſparks and ſlight ſhocks paſſed through the arms repeatedly of late, but without the ſmalleſt effect on the paralyſis. The patient is a weak and delicate married woman, who has long laboured under conſiderable anxiety of mind. Her complexion is ſallow, and her pulſe generally ſmall and frequent.

I have adopted the term *arthritis rheumatica* from Sauvages, to expreſs a modification of rheumatiſm, which is not accurately expreſſed by the terms acute or chronic rheumatiſm; it is, in common language, called rheumatic gout. It is more properly an acute but partial attack of rheumatiſm, marked by a ſwelling, pain, and tenſion of the ſoft parts ſurrounding one or more of the larger joints, accompanied with a bright and ſhining redneſs of the ſkin, as in gout; not however, like the latter diſeaſe, occurring periodically, or connected with diſorders of the digeſtive organs, or terminating by the depoſition of concretions of urate of ſoda. I mention it more particularly with a view to the remedy which I have ſucceſsfully employed; I mean the external application of *cold water*. This expedient has been lately adopted, in every inſtance which has come under my care, invariably with temporary relief, generally with ſpeedy and permanent benefit, and never with any appearance of untoward conſequences. A lotion of water and vinegar, or of equal portions of water and aqua ammoniæ acetatæ, has generally been uſed. This modification of local inflammation, being unconnected with the ſtomach, ſeemed to be without any probable danger of *retrogreſſion*, and the event has hitherto accorded with this anticipation.

T. B.

28th February 1806.

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* The author of a late, excellent, and truly philoſophical treatiſe "on the uſe of purgative medicines," which has contributed to throw much new light on ſome obſcure diſeaſes.

TO THE EDITORS OF THE MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,

The following ſtatement of the number of patients admitted under the care of the Phyſicians and Surgeons of the Liverpool General Diſpenſary in the year 1805, and alſo of the diſeaſes under which they have laboured, will, I hope, be acceptable to you. I will vouch for the ſtatement being a correct one, having had a principal ſhare in the inveſtigation of the numbers, and in the arrangement of the diſeaſes, myſelf. Should you think the liſt worth inſerting in your next Number, have the goodneſs to give it a place therein.

Yours very reſpectfully,

JA. DAWSON.

Mount Pleaſant,
Feb. 25. 1805.

Liſt of Diſeaſes in 1805.

Febres continuæ	795	Catarrhus	94
—— Intermittentes	35	Dyſenteria	178
Inflammatio	91	Diarrhœa et Cholera	388
Ophthalmia	415	Apoplexia	12
Gangrena et Sphacelus	10	Paralyſis	400
Cephalalgia et Vertigo	145	Hemiplegia	16
Cynanche tonſillaris	200	Hemicrania	26
Cynanche maligna	8	Paraplegia	5
Cynanche trachealis	15	Syncope	5
Pneumonia	67	Dyſpepſia	328
Rheumatiſmus	656	Chloroſis	8
Variola	141	Vomitus	27
Varricella	12	Gaſtritis	4
Vaccinatio	1723	Enteritis	6
Rubeola	19	Hepatitis	4
Scarlatina	80	Nephritis	22
—— Anginoſa	68	Peritonitis	3
Eryſipelas	57	Hypochondriaſis	21
Urticaria	9	Amenorrhœa	200
Aphthæ	110	Spaſmi	16
Epiſtaxis	35	Convulſio	71
Hæmoptyſis	76	Tetanus	10
Hæmatemeſis	20	Chorea Sancti Viti	20
Phthiſis	255	Epilepſia	57
Hæmorrhois	70	Palpitatio	65
Menorrhagia	97	Aſthma	174
Leucorrhœa	63	Tuſſis et Dyſpnœa	692
Blenorrhœa	14	Tuſſis convulſiva	125
Hæmaturia	18	Colica	100
Abortio	53	—— Pictonum	20

Diabetes

Diabetes	20	Schirrus & Cancer	28
Hyſteria	151	Polypus Naſi	12
Melancholia	2	Hernia	85
Inſania	8	——— incarcerata	5
Debilitas	226	Prolapſus Uteri	55
Maraſmus	6	Prolapſus Ani	38
Tabes Meſenterica	4	Luxatio et Diſtentio	85
Hydrops et Anaſarca	233	Amputatio	9
Aſcites	40	Vulnus, Contuſio, et Fractura	453
Hydrochephalus	9	Abſceſſus, Ulcus, et Uſtio	378
Congeſtio Capitis	10	Curvatura Spinæ	9
Hydrothorax	10	Tumor & Induratio	138
Hydrocele	6	Fiſtulæ	4
Rachitis	18	Herpes	30
Scrophula	145	Tinea Capitis	55
Syphilis et Gonorrhœa	799	Pſora	835
Scorbutus	21	Caries	10
Icterus	40	Hydrarthus	10
Amauroſis	16	Calculus Veſicæ	28
Dyſecœa	4	Vermes	246
Eneureſis	24	Dentitio	18
Obſtipatio	280		
Nephralgia	60		13,138
Aneuriſmus	3		

A Notice on the Preſence of the Phoſphat of Magneſia in Bones. Communicated by Mr Fourcroy to the Annales du Muſée d'Hiſtoire Naturelle, 36th Cahier.

THE diſcovery of a new earthy phoſphat in the bones of animals is an intereſting fact in the hiſtory of phyſical ſcience. It was effected two years ago by Mr Vauquelin and myſelf, during the courſe of experiments which we were making on animal concretions, and of which we have frequently preſented the reſults to the public.

We had already diſcovered, *1ſt*, The preſence of the ammoniaco-magneſian phoſphat among the conſtituent principles of the urinary calculi in the human ſubject, and of the inteſtinal concretions in other animals; *2d*, That the phoſphat of magneſia exiſts in the urine of man, and is there characterized by the property of forming a triple cryſtallized ſalt, when urine gives out ammonia from its ſpontaneous decompoſition. It became, therefore, important to aſcertain whether that magneſian ſalt, formerly unknown in animal ſubſtances, might not likewiſe be preſent in ſome organs. Bones, which bear the greateſt analogy in their compoſition to urinary concretions, offered themſelves firſt to our inveſtigation; and although their analyſis appeared to have been already carried to a great degree of perfection, the new ſet of experiments to which they have been ſubjected has ſhown in them another conſtituent ſalt, by proceſſes, indeed, more complicated than thoſe which had been hitherto employed in that *ſpecies* of analyſis.

In order to diſcover the phoſphat of magneſia in bones, well calcined and pulverized bones are treated with an equal weight of ſulphuric acid; the mixture is allowed to ſtand for five or ſix days, is then diluted, firſt with ten times, and afterwards with five times its weight of water, filtrated each time and ſtrained; ammonia is added in exceſs to the liquor, which, inſtead of phoſphoric acid only, as was formerly ſuppoſed, contains phoſphat of lime, and phoſphat of magneſia, both held in ſolution by phoſphoric acid, and in proportion as that exceſs of acid is ſaturated with the volatile alkali, a mixture of calcareous and ammoniaco-magneſian phoſphat falls to the bottom. That precipitate is waſhed with ſome cold diſtilled water, and treated with ſome cauſtic potaſh, till the ebullition diſengages no more ammonia. The ammoniaco-magneſian phoſphat is decompoſed by that proceſs; the ammonia is volatilized, the acid unites with the potaſh, and the ſalt thus formed remains in a ſtate of ſolution: magneſia is depoſited at the bottom, and mixed there with calcareous phoſphat. The liquor is then decanted, the precipitate waſhed, and boiling diſtilled vinegar is poured upon it, which diſſolves the magneſia without attacking the phoſphat of lime. The acetat of magneſia is then decompoſed by carbonat of ſoda; the carbonat of magneſia reſulting from that decompoſition is dried, its weight determined; and, upon adding to it ſulphuric acid, ſulphat of magneſia is formed, under which form the preſence of that earth is more eaſily determined.

In repeating the above proceſs ſeveral ſucceſſive times, in order to aſcertain the reality of the preſence of the magneſian phoſphat in the bones of animals, or to determine its relative quantity, we have obſerved that the acetic acid always diſſolved ſome lime along with the magneſia, while that lime could only come from the decompoſition of a ſmall part of the calcareous phoſphat by the potaſh. Thus, notwithſtanding our preſent laws of chemical affinities, it ſeems to be an aſcertained fact, that potaſh may diſengage lime from phoſphoric acid, though in very ſmall quantity, and that only when the quantity of the potaſh employed bears a large proportion to that of the phoſphoric ſalt, whereas lime takes entirely and completely the phoſphoric acid from the potaſh. We have here an inſtance of the influence of maſſes pointed out by Mr Berthollet, to explain apparent anomalies in the play of elective attractions.

Calcined ox bones contain about 1-40th of phoſphat of magneſia.

The bones of the horſe and ſheep 1-36th.

Thoſe of the chicken and hare very nearly 1-40th.

We have never been able to extract it in any conſiderable quantity from human bones.

The bones of the ox, which have been moſt frequently the ſubject of our analytical reſearches, appear to us to have the following conſtituent parts.

Gelatin, (ſolid)	-	51
Phoſphat of lime	-	37.7
Carbonat of lime	-	10
Phoſphat of magneſia		1.3

The preſence of the phoſphat of magneſia in various parts of animals manifeſtly derives its origin from the food which they uſe. We have found that ſalt in barley, wheat, oats, &c.; it exiſts in the *cerealia* in the proportion of 1.5-100 of their weight, that is to ſay, in a proportion nearly double that of the calcareous phoſphat which they contain. There is undoubtedly ſome connexion between that fact, and that of the exiſtence of thoſe inteſtinal concretions in animals which are compoſed of the ammoniaco-magneſian phoſphat.

It is not very difficult to explain how it happens that bones in the human ſubject contain no magneſian phoſphat, although that ſalt exiſts in larger quantity than the calcareous phoſphat in wheat flour. It is probably carried away by the urine, where we have found it, while it is not diſcoverable in that excrementitious fluid in animals in which the ſkin or the inteſtines are the natural emunctories for that neutral ſalt.

Without laying too much ſtreſs on the influence of thoſe chemical diſcoveries which reſult from the analyſis of natural bodies, in illuſtrating the animals of economy, we can no longer overlook or neglect their more immediate applications. We may even confidentially expect that their ſober multiplication will ſlowly promote and improve the ſcience of phyſiology.

Dr Henderſon is preparing for the preſs a tranſlation of Cabanis' work, reviewed in the preſent Number.

TO CORRESPONDENTS.

We have received communications from Profeſſor Roſenmuller, Leipſick, Mr Roberts, and from one of the ſurgeons of the Newcaſtle Diſpenſary; and the Memoirs of the Medical Society, vol. vi. Dr Buchan on ſea-bathing, and Dr Lambe on ſpring-water, have been ſent for analyſis. The ſuggeſtions of Medicus and Tyro are under conſideration; and the reviews of Dr Stock on cold, Dr Bourne on conſumption, Fabbroni on the genus cinchona, and Dr Hunter on the diſeaſes of Laſcars, have been poſtponed for want of room.

ERRATA.

Vol. ii. p. 29. line 19. for *idioſynery*, read *idioſyncraſy*.
—— p. 139. 3 l. from bottom, for *us*, read *as*.
—— p. 143. l. 14. for *agitating*, read *agitations of*
—— p. 105. l. 22. for *maſter*, read *member*.

It is with much regret that we muſt call the attention of our readers to a moſt unlucky miſprint in the ſketch of the life of Dr Currie. It is there ſtated, page 47. line 2. from the bottom, that that illuſtrious character *had a* bad *memory for his friends, but not for his enemies*. By an inexcuſable typographical interpolation, the biographer is thus made to record a cenſure on the memory of his deceaſed friend, when he intended a panegyric. We, therefore, requeſt our readers to correct this important error, by deleting the injurious epithet.

⁂ *Communications may be addressed to Mess.* Constable & Co. *Booksellers, Edinburgh*; Longman, Hurst, Rees, & Orme, *London; or* Gilbert & Hodges, *Dublin.*

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Obſervations on the Structure of the Parts concerned in Crural Hernia. By ALLAN BURNS, Member of the Royal College of Surgeons in London, and Lecturer on Anatomy and Surgery in Glaſgow.

HERNIA is a diſeaſe extremely frequent in its occurrence, always dangerous while it continues, and in its iſſue often fatal. Sometimes it is remediable without the performance of a ſurgical operation; at other times it is abſolutely neceſſary to have recourſe to the knife. Now, to enable the ſurgeon to act moſt advantageouſly on the prolapſed parts, in order to reduce them without cutting, or to operate with moſt eaſe to himſelf, and ſafety to his patient, he muſt obtain a thorough knowledge of the ſtructure of the parts ſituated in the vicinity of the diſeaſe. In crural hernia, a correct acquaintance with the anatomy of the parts at the upper part of the thigh is of the higheſt value to the ſurgeon; for, not poſſeſſed of this information, he is extremely apt unintentionally to increaſe the obſtacles to reduction, or, in operating, to injure parts he ought not to have touched; but, acquainted with the parts concerned, he knows how to obviate, in ſo far as can be done by art, the mechanical agents which reſiſt the replacing of the gut, and he is made acquainted likewiſe with the ſafeſt and moſt adviſable mode of operating.

Previous to the year 1768, little was known to anatomiſts with regard to the ſtructure, connexions, and relative ſituation of Poupart's ligament. It had till then been generally deſcribed as a diſtinct ligamentous production attached to the lower margin of the oblique muſcles, and extended from the ſpine of the ilium to the creſt of the pubes, poſſeſſed of but ſlight attachment by means of cellular membrane, to the parts in the vicinity. It was about this time that Mr Gimbernat, a Spaniſh ſurgeon, diſcovered two eſſential points reſpecting the formation of the crural arch. He found a ſeptum extended from the lower margin of the ligament, to be implanted into the brim of the pelvis, and he diſcovered ariſing from the inferior fifth of the arch, a membranous production, which is inſerted all along the linea pectinea. This duplicature may either be ſaid to ariſe from the femoral arch, or it may be deſcribed as taking its origin from an aponeuroſis to be afterwards deſcribed. In itſelf, it is triangular in ſhape, the apex looking to the ſymphyſis of the pubes, the one ſide fixed to the crural arch beneath the inguinal canal; the other attached to the pubes, and the creſcent ſhaped baſe turned toward the iliac vein. Theſe two proceſſes, diſcovered by Gimbernat, tend to bind down the arch, to retain it firmly in its ſituation, and, beſides, to divide it into two unequal portions. To the outer and largeſt diviſion he gave no name; to the inner, or the one neareſt the pubes, he gave the name of crural ring; and through this aperture, in which the iliac vein and a ſet of lymphatics are lodged, the herniary contents invariably protrude in femoral hernia.

After Mr Gimbernat, ſucceeding anatomiſts have, by their reſearches, continued to extend our acquaintance with the ſtructure of theſe parts; but ſtill from ſome diſſections made by my brother and myſelf during the ſummer of 1802, we have been led to ſuppoſe that ſome peculiarities had at that time remained unnoticed and undeſcribed, more eſpecially with regard to the ſtructure and connexion of the faſcia of the thigh; and it is theſe that I now chiefly intend to deſcribe.

By diſſecting away the peritoneum and adipoſe matter, we find that all the inner ſurface of the pelvis is lined with a pretty firm and denſe aponeuroſis, which completely covers the iliac and pſoac muſcles, and dips down into the cavity of the pelvis, covering the muſcles and ligaments there, as well as the bones. This aponeuroſis is ſeparable into at leaſt two layers; perhaps, by maceration, we may obſerve more. That portion of the aponeuroſis, which inverts the iliacus muſcle, is inſerted into the inner margin of the crural ligament, in the way which I am now to deſcribe. The aponeuroſis divides into two layers;

one paſſes before the arteria circumflexa ilii, the other behind it; or, in other words, this veſſel inſinuates itſelf between the laminæ. The outer layer is inſerted into Poupart's ligament all the way from the ſpine of the ilium down to the point beneath which the femoral artery emerges from the abdomen; and, juſt at this ſpot, or rather a little nearer the ſpine of the ilium, a narrow production from the outer layer of the aponeuroſis runs forward, implanting itſelf into the crural arch beneath the ſulcus leading into the inguinal canal, and terminates in a pointed extremity directly over the entrance of the great vein. It turns upward along the internal ſurface of the abdominal muſcles, forming an internal faſcia. The inner lamina paſſes down behind the iliac veſſels, and incorporates itſelf with the aponeurotic expanſion covering the pſoas muſcle, is continued along the brim of the pelvis, dips down into the cavity of the pelvis, and expands over it, forming a general lining for the muſcles and bones; part alſo turns over the body of the pubes, or brim of the pelvis, and paſſes out on the thigh, forming a deep aponeuroſis behind the femoral veſſels, which may be traced expanding from the tendon of the pſoas and brim of the pelvis over the pectineus and triceps muſcles, and is ſeen afterwards uniting with the faſcia of the thigh. A little nearer the ſymphyſis of the pubes than the great vein, the outer layer of this aponeuroſis quits the bone, forming a duplicature, which riſes up to the inferior margin of the femoral ligament, and, having joined it, is continued with it all the way to its final implantation into the creſt of the pubes, forming thus a triangular membranous proceſs, whoſe apex is directed toward the ſymphyſis of the pubes; and the baſe, which is creſcent ſhaped, has the concavity directed toward the great vein. This duplicature has been deſcribed by Mr Gimbernat; and my friend Dr Monro junior, the preſent learned profeſſor of anatomy in Edinburgh, has aſcertained, by diſſection, that it is conſiderably broader in females than in males, which, by increaſing the diameter of the crural aperture, is, in his opinion, one reaſon why women are ſo much more ſubject to femoral hernia than men. And, in all thoſe caſes where we have had an opportunity of examining crural hernia, this ſeptum or duplicature has invariably been found to meaſure at leaſt one-third more, from its point of junction with the crural ligament, to its inſertion into the linea pectinea, than, in a healthy condition, it ought to have done. But whether this depth of the duplicature depended upon an original formation, or was the reſult of alterations induced by the protruded parts, is a queſtion not eaſily anſwered.

Next, it is to be remarked, that the aponeuroſis of the pſoas muſcle, as it extends along the bone, ſends up a duplicature or ſeptum between the great artery and vein, which is inſerted into the lower edge of Poupart's ligament, juſt beneath the termination of the point or narrow ſlip of the proceſs from the outer layer of the iliac aponeuroſis. It is alſo implanted into the under ſurface of the femoral faſcia, through the whole length of the thigh, accompanying the veſſels to that ſpot where they perforate the triceps tendon. This ſeptum ſeparates the artery from the vein, and divides the oval ſpace formed beneath the arch into two portions; the outer compartiment containing the tendon of the pſoas muſcle, the inner containing the great vein, and a ſet of lymphatic veſſels, with one or two ſmall glands, which fill up the vacant ſpace between the vein and the duplicature at the pubes. Theſe are the general contents of the crural foramen; ſometimes, however, the glands are wanting, and cellular matter ſupplies their place; and, more than once, I have obſerved this aperture almoſt cloſed up by a ligamentous expanſion ſtretched acroſs it. Indeed, no opening exiſted, if we except a ſmall perforation ſeated in the centre of this unnatural ſeptum.

Theſe different proceſſes, which are three in number, one at the iliac muſcle, one at the pubes, and a third between the great artery and vein, tend to bind down the crural arch more firmly, and to connect it better and more ſtrongly to the bone, and prevent its yielding ſo much as it would otherwiſe do; but this tenſion is ſtill more kept up by the faſcia of the thigh, which muſt next be examined: But, before doing ſo, I may mention, that ſometimes an unnatural aperture is found ſituated between the crural foramen and the lower margin of the inguinal canal, formed in the line of junction of Gimbernat's duplicature with the crural arch, and placed near to the creſcentic edge of the former. Now, when protruſion takes place through this vacuity, then a particular ſpecies of hernia is produced; for the tumour lies behind the ſpermatic cord, yet follows its courſe, partaking thus, in ſome reſpects, of the nature of both crural and inguinal hernia. It is not a frequent occurrence to find this foramen, yet, in two inſtances, I have met with it.

The faſcia conſiſts of two layers, the outer thin and cellular, the inner firmer, thicker, and more membranous. The outer layer deſcends from the aponeuroſis covering the external oblique muſcles, and is traced attached to the whole extent of the crural arch, and ſpreading down the thigh over all the veſſels and glands; but its ſtrength and thickneſs are inconſiderable, and it looks almoſt like firm, cellular ſubſtances, except in the fœtus, where it has a diſtinct fibrous appearance, and the ſtriæ run tranſverſe, which diſtinguiſhes this layer from the inner, in which they all tend from above downward. The inner lamina ariſes only from the outer part of the arch, from that portion which extends from the ilium to the femoral vein; it keeps the ligament tenſe, and all the muſcles firm. Juſt where this layer ceaſes to ariſe from the arch, we find the ſuperficial vein entering, and therefore this vein is not covered with the inner or principal layer of the faſcia, and, on diſſecting away the vein, we ſee ſtill better the ſtructure of theſe parts: we find that the faſcia ſtops juſt at the entrance of this vein, and, in many caſes, it terminates abruptly with a neat, firm margin, which is traced ſome way down the thigh. The edge is lunated, and the concavity is directed toward the pubes, or ſuperficial vein. This is the uſual appearance of the parts; ſometimes, however, the ſtructure is not quite ſo diſtinct, for occaſionally a conſiderable quantity of reticular cellular matter is placed about, and adheres to the creſcentic margin of the faſcia. Neverthelefs, in every inſtance, this lunated edge may be diſcovered, by paſſing the finger from the abdomen through the crural ring, and preſſing outward; and by diſſection it may be clearly demonſtrated in emaciated, anaſarcous ſubjects. It has been named by my brother the falciform proceſs, or margin of the faſcia; and is highly worthy of notice, for, as we ſhall afterwards ſee, it performs an important part in femoral hernia, and a knowledge of its ſituation and connexion elucidates ſome points in the pathological hiſtory of this diſeaſe. The top, then, of the pectineus, and long head of the triceps, is not covered by this faſcia; but, as I have already remarked, they are covered by a firm aponeuroſis, into which we trace the inveſting ſheath of the pſoas. About an inch and a half below the creſt of the pubes, the pectineal aponeuroſis ſends off a proceſs or duplicature to be inſerted into the under ſurface of the faſcia, at a very little diſtance from the falciform proceſs; and this duplicature divides the ſuperficial vein and lymphatics, which enter with it completely from the large veſſels lying beneath the faſcia; and over the edge of this proceſs we, in general, find an oblong conglobat gland folded, one half ſtretching beneath the aponeuroſis; the other deſcends above it, and thus between the two portions this duplicature is interpoſed. On the outer ſide of the duplicature we diſcover the vena ſaphena lying in a hollow or channel, which is covered only by the ſuperficial thin layer of faſcia, and which leads us up to the crural foramen of Gimbernat, ſituated between the great vein and the creſcentic fold at the pubes; and, in femoral hernia, it is in this hollow, which may be called the vagina of the ſaphenic vein, that the gut is lodged. Whenever it comes out, it is ſeparated from the great veſſels by the ſeptum, or proceſs which I have deſcribed as ariſing from the pectineal aponeuroſis, and it is bound down not only by the arch at the crural aperture, but alſo by the falciform proceſs, after it has got beyond the ring; and thus there is a double ſource of ſtrangulation, and the gut being tied down thus firmly, and alſo covered with the thin layer of the faſcia, has a hard feel, a flattened ſurface, and its ſac lies on the pectineus muſcle, and fills up completely the vagina of the ſuperficial vein, and the protruded parts are difficult of reduction. In inguinal hernia we can graſp the tumour in our hand, and entirely ſurround its baſe, which gives us a great command over its contents. But this advantage we are deprived of in crural hernia, for in it the tumour is flat, narrower above than below, and often doubled back upon itſelf, the one portion lying in the vagina of the vein, the other folded over the falciform proceſs of the faſcia, and the inverted edge of Gimbernat's duplicature; for the one is a continuation of the other; and, in femoral hernia, from the ſtructure of the parts, the upper horn of the creſcentic duplicature at the pubes is frequently protruded before the gut; a fact, if I am not miſinformed, which has been aſcertained by Mr John Thomſon, profeſſor of ſurgery in Edinburgh. This turning up of the tumour has been fully deſcribed by Dr Monro; and Mr Charles Bell aſſures us, that the receſſion depends upon a rupture of the faſcia. But this is a ſuppoſition to which we cannot aſſent; for it would in reality ſeem to depend upon the upper part of the tumour being confined by the vagina of the vein; while, on the other hand, the inferior part of it is allowed to expand from the deficiency of the faſcia, immediately after it has emerged from beneath the falciform margin. By this want, and by the pectineal aponeuroſis riſing up to join the femoral faſcia, the tumour is naturally elevated at this ſpot conſiderably above its original level; and this, it is evident, cannot be accompliſhed without giving the inferior part a tendency to incline upward from the leſs reſiſtance in that direction. From this tilting of the tumour, one of the ſtrongeſt proofs, independent of diſſection, of the exiſtence of a falciform proceſs may be drawn; as, without ſome conſtruction of this kind, this phenomenon never could take place; and the farther out and leſs perfect the falciform proceſs is, the more obſcure this elevation of the herniary tumour muſt of courſe be; and this, together with the inaccuracy of ſome examinations, is a ſufficient explanation of the fact, that the tilting is not invariably detected.

Further, with regard to the falciform proceſs, I have yet another remark to offer, and that is, to beware of attempting reduction by the taxis, without firſt conſidering and obviating, as far as it is poſſible to do ſo, the obſtacles retarding the accompliſhment of this end. We have already ſeen that the tumour in crural hernia is frequently doubled back upon itſelf, and this retroverſion we have pointed out as one ſource of embarraſſment to the ſurgeon. Now, I muſt mention, that, in certain poſitions of the limb, the falciform proceſs exerts a more powerful action upon the gut than it does in others, and thereby renders what is difficult ſtill more ſo. To overcome this difficulty, it behoves the ſurgeon to ſtudy well the ſituation and connexion of this proceſs, as, by a knowledge of its locality, he will be led to an acquaintance with its action. By reaſon of the mode of junction with the femoral ligament, the falciform proceſs, when the limb is extended, and at the ſame time ſeparated, and the toes rolled outwards, comes to gird the gut more powerfully than when the member is in an oppoſite direction. For, by abduction, extenſion, and rotation outwards, we endeavour to elongate the falciform proceſs, which is, in femoral hernia, ſtretched over an arched ſurface formed by the upper ſegment of the ſac; and this elongation, it is clear, can only be accompliſhed in one of two ways, either by removing to a greater diſtance from each other the individual fibres compoſing the proceſs, or otherwiſe, by making the margin of the proceſs ſink into the tumour, whereby it will approach nearer to the ſtraight line. And the latter is the moſt obvious mode; for we well know that faſcia is not over and above extenſive, and that, of conſequence, while a leſs force will be ſufficient to preſs it into the tumour, a greater one will not be employed to operate upon the proceſs itſelf. Now, mark the effects of this action of the falciform proceſs upon the gut: The tumour is divided into two portions, and the part immediately ſubjected to the preſſure of the proceſs is firmly and immoveably tied down, and, of courſe, reſiſts every endeavour of the ſurgeon to replace it. He acts, as it were, upon a ſand-glaſs; his endeavours are exerted to overcome a power to which he has unknowingly added potency. The contraction of the ring does not act more powerfully in preventing the reſtoration of the diſplaced parts, than does this other cauſe of ſtrangulation, which it is, in a great meaſure, in our power to overcome, not, indeed, by force, but rather by the employment of artifice. Let us, therefore, before undertaking to reduce the parts by taxis, obviate, in as far as we can, all thoſe obſtacles which have a tendency to foil our wiſhes, and then we may, with a greater proſpect of ſucceſs, proceed to reſtore the gut.

From what has been already ſaid, it will be evident, that after having premiſed the uſual auxiliaries of this operation, ſuch as the warm bath, blood-letting, and the other depreſſing agents, the poſition of the limb next merits our regard; and on this head a very few words will ſerve to convey all the requiſite information. A ſhort ſentence will contain all the directions we have to give. Extend the leg, bend the hip joint, roll the toes inwards, and rather croſs the affected thigh over the other; and theſe done, we have, to the utmoſt of our ability, removed all the obviable mechanical obſtruction to the reſtoration of the gut into the ventral cavity. But how often this fails, is beſt known to thoſe engaged in actual practice. After the taxis has proved ineffectual, we have yet another reſource left, by the performance of a ſurgical operation, which never fails, if we wiſh it to permit of a return of the diſplaced parts, although even it often proves unſucceſsful in reſtoring the health.

To relieve the ſtrangulation, it has been propoſed to cut the ligament or arch, giving the inciſion various degrees of obliquity; but the objections to theſe are ſolid and well known. To avoid theſe, Mr Gimbernat propoſes to cut only the duplicature at the pubes: "Sed incidit in Scyllam, dum cupit vitare Charybdin;" for, in rare inſtances, the epigaſtric artery, as it comes off from the iliac, makes a ſweep inward, and lies on the duplicature, and the hernia comes down within the concavity or ſweep of the veſſel, and preſſes it on the very ſpot cut by Gimbernat; and whenever this is the caſe, which, it muſt be confeſſed, is not often, we ſhall divide not only the artery, but alſo the vas deferens, which always turns over the loop formed by the veſſel. But, even granting that the epigaſtric is in every inſtance ſafe, ſtill it is to be remarked, that the epigaſtric and obturator arteries, in many caſes, ariſe by a common trunk, and that the latter, after ſeparating from the former, often attaches itſelf to the creſcentic duplicature at the pubes, ſometimes by cellular membrane, ſometimes by ligamentous fibres, and not rarely by an intricate plexus of ſmall veins. Now, whenever this happens, the veſſel is, by the deſcent of the gut, brought into contact with the lunated edge of the production at the pubes, and muſt inevitably, in Gimbernat's mode of operating, come to be injured. It is equal in ſize to the epigaſtric, and it muſt be equally dangerous to divide either of theſe veſſels. It may be ſaid that this diſtribution is rare. I ſhall only reply, that we have, in the courſe of our obſervation, met with above thirty examples of it, and, in ſeveral of the ſubjects, it aroſe by a ſimilar origin on both ſides. In ſome rare caſes, even where the artery does come off along with the epigaſtric, it may ſtill be ſafe; but this is only when it is

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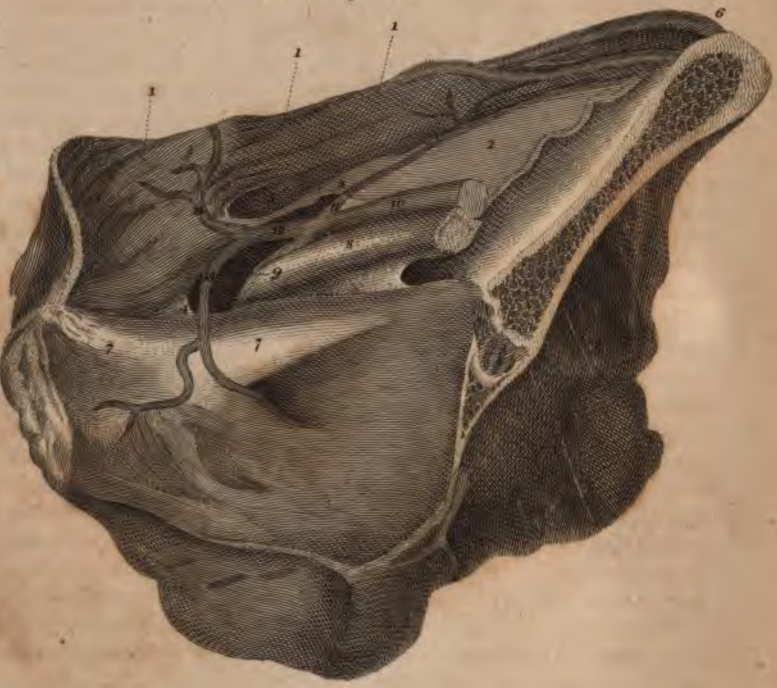
Internal View
of the parts concerned in
CRURAL HERNIA

Fig. 1.



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very ſhort, and applied cloſe to the great vein, inſtead of the proceſs at the pubes.

There is, however, I imagine, in moſt herniæ, very little cutting neceſſary with a view to dilatation; for when the ſac is opened, and the inteſtine expoſed, we can act upon it for reduction with great advantage; but, when this is not practicable, we may have, only in femoral hernia, to divide the falciform proceſs of the faſcia with a pair of blunt-pointed ſciſſars, and this not only takes off one direct cauſe of ſtrangulation, but it is ſtill more uſeful by ſlacking the arch, and allowing it to yield at the crural ring; then if we open the ſac, and try to introduce the finger upward and outward, we can eaſily feel the tightening made by the margin of this proceſs. I have even felt it where the parts were completely gangrenous; and, after cutting it, and pulling out a little more of the gut, to make it change its poſition at the ring, and to deſtroy any adheſion which may exiſt, we may with eaſe return it.

To illuſtrate the deſcription, I have added two views, taken from a preparation made during the ſummer of 1802.

Explanation of Plate I. which is an internal view of the parts concerned in crural hernia.

1. The abdominal muſcles dried in ſitu. 2. The iliac aponeuroſis. From beneath it the fibres of the muſcle are cut away, ſo as to expoſe the coſta of the ilium. The poſterior part of the ala ilii is cut away. 3. The peak of the outer layer of the iliac aponeuroſis, ſhowing its implantation into the crural arch juſt over the exit of the great artery. 4. The duplicature at the pubes, diſcovered by Gimbernat. In this view, the ſeptum dividing the ſpace beneath the arch into two compartiments cannot be expreſſed. 5. The internal orifice of the inguinal canal. 6. The anterior ſuperior ſpine of the ilium. 7. The body of the pubes. 8. The external iliac vein. 9. The vacant ſpace between the vein and the duplicature at the pubes, named by Gimbernat the crural foramen, and through which the gut protrudes in femoral hernia. 10. The iliac artery. 11. The arteria circumflexa ilii, winding round the curve of the ilium between the two layers of the iliac aponeuroſis. 12. The common trunk of the epigaſtric and obturator arteries. 13. The obturator veſſel. This preparation illuſtrates the ſweep it makes in its courſe to the thyroid foramen, and exhibits the proximity of its coats to the creſcentic fold at the pubes. In a ſimilar diſtribution of this veſſel, the gut muſt, in crural hernia, invariably deſcend within the loop of the artery, preſſing it upon the lunated margin of the duplicature, or upon the very ſpot divided by Gimbernat. 14. The epigaſtric artery.

Fig. II. explains the ſtructure of the parts at the top of the thigh.

(A) the ſpine of the ilium. (B) The tubercle of the pubes. (C) The abdominal muſcles. (D) The crural arch. (E) The external or inferior orifice of the inguinal canal. (F) The anterior fillet of the ſpermatic canal, ſeen terminating in the creſt of the pubes. (G) The poſterior faſciculus, ſhowing its twofold inſertion. The one diviſion implanted into the tubercle of the pubes, juſt behind the former, the other band comes along the triceps and gracilis muſcles, to reach, in ſome ſubjects, even to the gluteus tendon to which it is attached. (H) The inner layer of the femoral faſcia, or the faſcia vera. It is obſerved to take its riſe from the ſuperior and middle parts of the crural arch. (I) The falciform proceſs of the faſcia vera, ſeated juſt over the head of the pectineus muſcle, and in this ſubject peculiarly diſtinct, more ſo than in general. It is a continuation of Gimbernat's duplicature, which turns outwards, and its diviſion relaxes the crural arch as much as does the cutting of the creſcentic fold at the pubes. (K) The vena ſaphena, dipping in beneath the falciform proceſs to join the femoral vein. (L) The pſoas aponeuroſis emerging from the pelvis by the foramen crurale, and covering the heads of the triceps and pectineus muſcles, then ariſing at (M) from theſe muſcles, paſſing acroſs between the ſaphenic and femoral veins, and finally uniting itſelf to the faſcia vera. (N) The femoral artery ſeen through the dry and tranſparent faſcia. (O) A ſmall foramen in the faſcia, through which we traced a ſet of lymphatics paſſing in their way to the abdomen.

Glaſgow, 17*th April*, 1806.

II.

Obſervations on the State of the Venereal Diſeaſe in the South Sea Iſlands. By JOHN WILSON, Surgeon to his Majeſty's Ship Porpoiſe.

HIS Majeſty's ſhip Porpoiſe arrived for the firſt time at Otaheite from Port Jackſon in June 1801, and an inquiry reſpecting the diſeaſes of the iſland, but more particularly thoſe by which the

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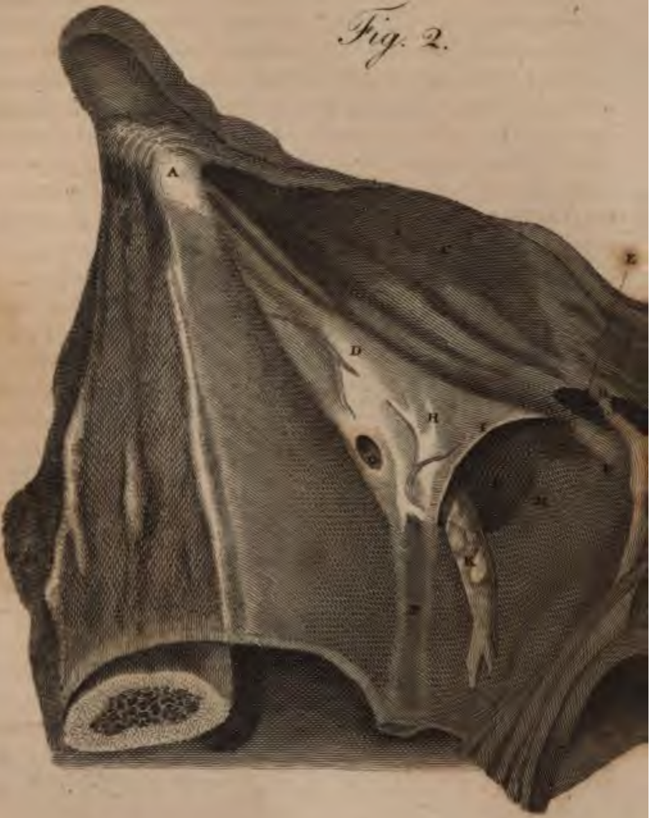
External View

Fig. 2.



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the health of the ſhip's company might be affected, immediately became a part of my duty.

Having arrived at this iſland with a deep impreſſion upon our minds of what we had read in voyages relative to the venereal diſeaſe, and its dreadful effects on the inhabitants, and as it was apprehended that its diſſemination on board might eventually diſable the ſhip from accompliſhing the important ſervice on which ſhe was ſent, this diſeaſe naturally claimed my firſt attention, in order that meaſures for preventing ſuch a ſerious conſequence might be recommended.

It alſo immediately occurred to me, that much uſeful information on this head might be obtained from the miſſionaries, who had been reſidents on the iſland for ſeveral years; and accordingly the firſt ſtep taken towards aſcertaining the moſt effectual preventive meaſures was to conſult them.

From theſe gentlemen I received, without ſurpriſe, a farther confirmation of my ideas reſpecting the prevalency and fatality of lues venerea, to which, with good reaſon, we were fearful many of the ſhip's company would ſoon become victims, eſpecially as it appeared, in a few days after our arrival, that an early application to the ſurgeon was almoſt the only practicable meaſure of precaution left us; reſtrictions being found not only to be inadmiſſible, but, from the neceſſary frequent intercourſe of the ſhip's crew with the ſhore, to be unattended with the deſired advantage.

Free admiſſion into the ſhip was therefore given to the women ſoon after our arrival, and it may be eaſily imagined that the ſeamen did not fail to avail themſelves of this indulgence; at the ſame time they were ſtrictly enjoined to apply to me the moment any venereal ſymptom, however ſlight, made its appearance.

From this period it was expected that many venereal caſes would occur; fortunately, however, our apprehenſions were proved, by the reſult, to have been groundleſs; for after we had remained one month in Mattavai bay, during which time the connexions of the ſeamen with the native women were perfectly unreſtrained, the venereal diſeaſe in no mode whatever appeared amongſt them; and even in the remaining part of our viſit, which was a ſpace of nearly four weeks more, only three of them contracted gonorrhœa in a mild form, and were cured by injection alone in a few days.

The number of women, who were on board at different times during our ſtay in this voyage, amounted at leaſt to two hundred, which was probably more than one fourth part of the whole of the young females at that time upon the iſland; and as theſe were certainly not the moſt chaſte part of the community, it muſt be from thence inferred, that gonorrhœa was at that period extremely uncommon amongſt them.

The total exemption of the inhabitants from lues venerea, and the unfrequency of gonorrhœa, both ſo irreconcileable with the accounts in voyages, and more eſpecially with the aſſertions of the miſſionaries, could not fail to excite ſurpriſe, and, at the ſame time, an attempt on my part to inveſtigate the merits of opinions ſo very repugnant to our experience; and the reſult of my inquiry proved, that the miſſionaries at leaſt had adopted erroneous opinions reſpecting the nature of the many tumours and ulcers which are to be met with among the inhabitants; for they did not heſitate to pronounce, that almoſt every tumour or ulcer, which came under their obſervation, had its origin in a venereal ſource.

Their miſtake originated partly from prejudice, and partly from being unqualified to diſcriminate; for they arrived at this iſland with as thorough a conviction of the prevalency of lues venerea amongſt the inhabitants as we did, and it cannot be ſuppoſed that any of them have much medical knowledge. At the ſame time it muſt be confeſſed, that the accounts of the natives often tended to confirm them in this error; for, from a kind of vain credulity, they believe, or rather pretend, that their iſland, before their intercourſe with ſtrangers, was free from moſt of the diſeaſes to which they are now ſubject; and thus lues venerea being, on all hands, allowed to be a foreign diſtemper, they of courſe moſt commonly aſcribe their ſores to that ſource.

I have now given an account of the venereal diſeaſe as it affected us in our firſt voyage, and it remains to be ſtated what came under obſervation in the ſecond.

In the interval between our departure from and arrival again at Otaheite in Auguſt 1802, the iſland was viſited at different periods by four ſmall veſſels from Port Jackſon, one of which, viz. the Norfolk colonial veſſel, was ſtranded in Mattavai bay, and her crew, to the amount of twenty-one, we found living on ſhore.

Soon after this our ſecond viſit, ſeveral of our ſhip's company were infected with gonorrhœa; and during two months continuance here, and one at the neighbouring iſland Eimeo, no leſs than thirty of them contracted it.

The ſymptoms were generally mild, and it often yielded to injection alone in three or four days. Only one caſe of ſwelled teſtes occurred, which took place four weeks after leaving the iſlands, and was the only one on board which was not cured at that time. Several had alſo excoriations on the glans penis; but this ſymptom being always preceded by a diſcharge from the urethra, and obviouſly occaſioned by an inattention to cleanlineſs, no variation was obſerved in the treatment, and it always diſappeared on removing the cauſe.

The plan of cure adhered to was, to throw up an injection of zinc vitriolat. five or ſix times a-day, with occaſional laxatives; and if chordee was troubleſome, a grain or more of opium was adminiſtered at bed-time; but in no inſtance was any mercurial preparation uſed. The crew of the Norfolk were brought to Port Jackſon in the Porpoiſe, after having lived on ſhore eight or nine months; during which period none of them eſcaped the infection of gonorrhœa, yet no ſymptom of lues venerea had appeared amongſt them on our arrival in the colony, two months after leaving all the iſlands.

This great increaſe of gonorrhœa, ſince our former voyage, was no doubt occaſioned by the ſubſequent arrivals from Port Jackſon, but more particularly by the crew of the ſtranded veſſel, one of whom, it appeared, had arrived at the iſland with a virulent clap.

The intercourſe of theſe ſhips' companies, including our own, with the women, was carried to ſuch an extent, that I am well aſſured that, during their ſtay, they had connexion with nine-tenths of the whole of the young ones on the iſland.

This indelicate ſtatement is neceſſary, as it ſtrongly elucidates the ſubject on which I am writing, and ſupports inferences which are directly oppoſite to the generally received opinion reſpecting lues venerea, and its effects on the Otaheitians; and, in order to ſhow the authority on which that opinion has been founded, I have taken the liberty of giving the following extracts from Captain Cook's voyages. In the ſecond volume of the firſt voyage, he ſays, " Their commerce with us has entailed the venereal diſeaſe; and nothing is more certain than that, when we arrived, it had made moſt dreadful ravages in the iſland. One of our people contracted it five days after he went on ſhore." He ſays further, " That the natives ſaid it was brought by the veſſels which had been there about fifteen months before us, and that they diſtinguiſhed it by a name ſignifying rottenneſs, ſaying it cauſed the hair and nails to fall off, and the fleſh to rot from the bones; that it ſpread an univerſal terror among them, and that the ſick were abandoned to periſh alone." He obſerves in the ſame page, " We had ſome reaſon to hope that they had found a ſpecific remedy for it. During our ſtay we ſaw none on whom it had made a great progreſs; and one who went from us infected returned after a ſhort time in perfect health; and by this it appeared, either that the diſeaſe had cured itſelf, or that they were not unacquainted with the virtues of ſimples. If we could have learned their ſpecific remedy for the venereal diſeaſe, if ſuch they have, it would have been of great advantage to us; for when we left the iſland, it had been contracted by more than one half of the people on board."

SECOND VOYAGE, vol. i.

"The Otaheitians complained of a diſeaſe communicated to them by the people of this ſhip, which, they ſaid, affected the head, throat, and ſtomach, and at length killed them. They ſeemed to dread it much, and were continually inquiring if we had it. This ſhip they diſtinguiſhed by the name of *Pahai no Peppe*, juſt as they call the venereal diſeaſe *Apa no Pretane* (Engliſh diſeaſe), though they, to a man, ſay it was brought to the iſland by M. De Bougainville; but I have already obſerved that they thought M. De Bougainville came from Pretane, as well as every other ſhip that has touched at the iſle. Were it not for this aſſertion of the natives, and none of Captain Wallis's people being affected with the venereal diſeaſe, either while they were at Otaheite, or after they left it, I ſhould have concluded that, long before theſe iſlanders were viſited by Europeans, this, or ſome diſeaſe which is near akin to it, had exiſted amongſt them; for I have heard them ſpeak of people dying of a diſorder, which we interpreted to be the pox, before that period. But, be this as it will, it is now far leſs common amongſt them than it was at the year 1769, when I firſt viſited theſe iſles. They ſay they can cure it, and ſo it fully appears; for, notwithſtanding moſt of my people made pretty free with the women, very few of them were afterwards affected with the diſeaſe, and thoſe who were had it in ſo ſlight a manner that it was eaſily removed; but amongſt the natives, whenever it turns to a pox, they tell us it is incurable. Some of our people pretend to have ſeen ſome of them who had the laſt diſorder in a high degree, but the ſurgeon, who made it his buſineſs to inquire, could never ſatisfy himſelf in this point. Theſe people are, and were before Europeans viſited them, very ſubject to ſcrofulous diſeaſes, ſo that a ſeaman might eaſily miſtake one diſorder for another."

We are here only told by Captain Cook, in very general terms, that the venereal diſeaſe affected his ſhip's company, but unfortunately the ſymptoms are no where deſcribed. The marks of the diſeaſe which were obſerved on the bodies of the natives are by no means concluſive, and their accounts of its effects do not correſpond with the ſymptoms of lues venerea which uſually occur with us.

The unequivocal ſymptoms of chancres and buboes about the pudenda do not appear to have been remarked; and indeed, as far as my obſervation went, I have reaſon to believe that an examination of the parts, which affords the moſt certain proof of the exiſtence of venereal infection, was generally found to be impracticable; for although obſcenity for the moſt part predominates in the dances and games of theſe people, yet, at any other time, as, for example, when they bathe, they are much more decorous in concealing, and infinitely more reluctant in expoſing, theſe parts than Europeans. It muſt alſo be obſerved, that no dependence whatever ſhould be placed on the accounts of the inhabitants, who, if they are to be credited, had few or no diſeaſes amongſt them before their intercourſe with ſtrangers; and they will, even at this time, name the particular Engliſh ſhips from which they pretend to have derived ſeveral of their complaints. But this is a topic which, above all others, they deteſt, and impart with no regard to truth whatever; for they apparently conſider perſons labouring under age or ſickneſs in ſomething of a criminal point of view, and under the immediate diſpleaſure of ſome ſupernatural being.

Farther, Captain Cook's obſerving none in whom the diſeaſe had made great progreſs was certainly a contradiction to their aſſertions. Is it not more than probable that the native who went from the ſhip infected, and ſoon returned in good health, had nothing more than gonorrhœa? and alſo, that the mild diſeaſe, with which his own people were affected in the ſecond voyage, was ſo likewiſe? The prevalency of ſcrofulous affections obviouſly appears to have led the captain into a miſtake in the firſt voyage, and the doubts of his ſurgeon in the ſecond, ſeem, in ſome degree, to have altered his opinion. That his concluding remark, that a ſeaman may eaſily miſtake one diſeaſe for another, was well founded, will appear by the following extract from the ſame voyage.

Speaking of Rotterdam, or Anamocka, he ſays, "The people of this iſle ſeem to be more affected with leproſy, or ſome ſcrofulous diſorder, than any I have ſeen elſewhere. It breaks out on the face more than any other part of the body. I have ſeen ſeveral whoſe faces were ruined by it, and their noſes quite gone. In one of my excurſions, happening to peep into a houſe where one or more of them were, one only appeared at the door by which I muſt have entered, and which he began to ſtop by drawing ſeveral parts of a cord acroſs it. But the intolerable ſtench which came from his putrid face was alone ſufficient to keep me out, had the entrance been ever ſo wide. His noſe was quite gone, and his whole face in one continued ulcer, ſo that the very ſight of him was ſhocking. As our people had not all got clear of a certain diſeaſe they had contracted at the Society Iſles, I took all poſſible care to prevent its being communicated to the natives, and, I have reaſon to believe, my endeavours ſucceeded."

It may be obſerved, that the Friendly Iſlands, of which this is one, had been viſited by Europeans long before the Society Iſlands were diſcovered, by which they had certainly as great a chance of getting the venereal infection as the latter: yet if people wanting their noſes had been obſerved at the Society Iſlands, it may be preſumed that their complaints would have been aſcribed to a very different ſource. What he ſays about leproſy will, as far as my obſervation goes, apply to all the South Sea Iſlands with which the Porpoiſe had any communication.

Mr Anderſon, who was ſurgeon of the Reſolution in Cook's third voyage, ſpeaks in ſtill more poſitive terms of the frequency of lues venerea at Otaheite, as appears by the following extract: "They only reckon five or ſix which might be called chronic or national diſorders, amongſt which are the dropſy and the fefai, or indolent ſwellings, before mentioned, as frequent at Tongataboo. But this was before the arrival of the Europeans; for we have added to this ſhort catalogue a diſeaſe which abundantly ſupplies the place of all others, and is now almoſt univerſal. For this they ſeem to have no effectual remedy. The prieſts, indeed, give them a medley of ſimples, but they own it never cures them. And yet they allow that, in a few caſes, nature, without the aſſiſtance of a phyſician, exterminates the poiſon of this fatal diſeaſe, and a perfect recovery is produced. They ſay, that if a man is infected with it, he will often communicate it to others in the ſame houſe, by feeding out of the ſame utenſils, or handling them; and that, in this caſe, they frequently die, while he recovers, although we ſee no reaſon why this ſhould happen."

But as this ingenious gentleman has neither informed us of the ſymptoms which appeared among the ſhip's company, nor deſcribed in what manner the diſeaſe ſhowed itſelf on ſhore, it may be fairly preſumed that he adopted the opinion of his captain, and confounded the moſt common diſeaſe, viz. ſcrofula, with lues venerea. And this opinion ſeems more probable, if it is conſidered, that at the period at which this gentleman wrote, gonorrhœa, which I ſuppoſe to have been the diſeaſe he ſaw on board, was generally conſidered as a modification of lues venerea, and excoriations on the glans, or ſymptomatic ſwellings in the groin, were invariably treated as chancres or buboes.

If lues venerea was at that time ſo common, how can its diſappearance be accounted for? As I preſume no fact can be better eſtabliſhed than that it did not exiſt, at leaſt in a mode capable of communicating the infection in the uſual manner, at the time of the Porpoiſe's viſits; ſince none of her crew, or the Norfolk's contracted it, after having ſuch unlimited connexion with the women, as has been already ſtated; and it would be highly abſurd to imagine, that if any of the latter had been infected, they would, on that account, have been inclined to any particular reſtriction. This opinion receives farther confirmation from the reſidence among the inhabitants, for ſeveral years, of many Engliſh ſeamen who deſerted from their ſhips. Some of theſe I have had an opportunity of ſeeing, who declared that they had frequently contracted gonorrhœa, which they ſpoke of as a complaint of a trifling nature, and which they obſerved generally went off ſpontaneouſly, or on uſing ſalt water and cocoa-nut milk as a purgative; yet none of them have ever had any ſymptom of lues, nor have they had an opportunity of taking any medicine whatever; and it may be ſuppoſed, that had this diſeaſe exiſted in the iſland, they muſt have contracted it, as the women were the principal attraction which induced them to deſert their ſhips.

It may be alſo advanced, from all the knowledge we have of lues venerea, that had it been imported by the firſt navigators, its extinction could not have been effected, even if the inhabitants were in poſſeſſion of a ſpecific remedy, of which I am well aſſured they are not; for, after a very careful inquiry, it appeared, that although they ſometimes uſe ſimples by way of medicine, ſuch as ſalt-water and cocoa-nut milk, as a purgative, they, like other uncivilized nations, have more faith in various ceremonies of a religious tendency; and, if we are permitted to judge from analogy, the effects of lues would certainly be more rapid and violent, in a country where chaſtity is not accounted a virtue, than in Europe.

The inhabitants whom I have obſerved affected with gonorrhœa chew great quantities of ſugar-cane, and ſometimes apply a poultice of the kernel of the cocoa-nut to the penis; the firſt of which is probably more advantageous than our preſcriptions of mucilaginous drinks, as it poſſeſſes all their virtues, with the addition of a laxative quality; and the latter muſt certainly have all the effect of an emollient poultice in chordee. By theſe means I have witneſſed two or three very good cures.

Their manner of living, and ſtrict attention to cleanlineſs, in which they excel us, are certainly very favourable in this complaint; therefore the ſymptoms are generally mild. And it may be here obſerved, that had the ſame number of our ſhip's company contracted gonorrhœa in a European port, they would have been affected with much ſeverer ſymptoms; which is ſufficiently accounted for by obſerving that they did not drink their allowance of ſpirits, and lived on what might be termed an antiphlogiſtic diet; that they generally applied to the ſurgeon the moment they found themſelves infected, and were rigidly reſtricted from women while the diſeaſe continued. Indeed, the ſingle caſe of ſwelled teſtis occurred in a perſon who did not obſerve thoſe precautions.

One of the miſſionaries, who is a little acquainted with medicine, has had conſiderable practice among the natives in gonorrhœa, and had been in the habit of adminiſtering preparations of mercury for it. Theſe he was perſuaded to lay aſide for the more ſimple plan of injection, and, before our departure, he was perfectly convinced of the propriety of this change; for, independent of its being unneceſſary, they bathe with ſuch a kind of religious punctuality, that mercury cannot be adminiſtered without incurring much danger.

The natives name gonorrhœa *O-pee*, and maintain that the Britiſh introduced it; and to the ſame ſource, as has been already obſerved, they attribute moſt of their diſeaſes. But it muſt by no means be inferred from their relations that this was really the caſe; for although the crew of the Dolphin, which was the firſt European ſhip that paid them a viſit, did not contract this complaint, yet this circumſtance does not prove the diſeaſe to have been unknown to them anterior to the viſit of that ſhip; eſpecially if it is conſidered that, in the Porpoiſe's firſt voyage, only three of the crew were infected; and, if her ſtay had been limited to one month, they would have eſcaped it altogether.

I preſume that it will always remain doubtful whether even this trifling complaint is one of their imported evils, although it appears to me to be more probable that it is not*; for the medical eſtabliſhment of all the ſhips on diſcovery was carefully ſelected; and more than ſufficient time for the cure of gonorrhœa muſt have elapſed between their leaving any port where they could contract it, and their arrival at theſe iſlands.

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[*] Mr B. Bell, p. 35. vol. I. ſays, that he has authority for ſaying that, in Cook's ſecond voyage, gonorrhœa had not appeared among the Otaheitians.

The diſcovery of other iſlands in the ſame ſea at ſome future period will throw light upon this ſubject, if due attention is paid to it: however, if I may be permitted to hazard an opinion, I think, that wherever man is found, gonorrhœa will be found alſo*.

From the foregoing ſtatement it may be concluded, I hope, without incurring the cenſure of preſuming too much, that, notwithſtanding the melancholy accounts we read of the ravages of lues venerea at Otaheite, and even diſputations about its firſt importers, this diſeaſe was not introduced there antecedent to the Porpoiſe's voyages †; and that Captain Cook and others met with gonorrhœa only, which they ſuppoſed ſufficient to produce all the ſymptoms of pox; and alſo that it muſt be ſufficiently obvious that the nature of theſe infections is different, as we found the one prevailing, yet in no inſtance met with the other.

However, although the firſt navigators are thus freed from having introduced this ſcourge of mankind, it is melancholy to reflect that its ſpeedy importation was almoſt certain; for before we departed from theſe iſlands, a ſmall veſſel arrived from Port Jackſon, on board of which there was a man affected with bubo and chancres; and it is probable that the efforts of the maſter to prevent him from diſſeminating the infection would prove unavailing.

Yet there remained a ſtill more certain ſource of infection from two veſſels which afterwards arrived from the Sandwich Iſlands, where, I have good authority for ſaying, the diſeaſe is very common ‡. And whenever it is imported, there can be little doubt of its making a rapid progreſs, notwithſtanding the benevolent efforts of the miſſionaries; for, from the danger, and, indeed I fear, the impoſſibility of making the natives ſubmit to a mercurial courſe, it will be a very difficult matter to cure any of them.

The great probability of their future intercourſe with New South Wales becoming frequent, will alſo be a conſtant ſource of

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* Gonorrhœa has been obſerved in natives of New Holland, at a diſtance from the ſettlement ſufficient to preclude the poſſibility of their having, either directly or indirectly, contracted the infection from the Britiſh.

† I am poſitive that in neither of our voyages did we carry to Otaheite venereal infection of any kind. One man complained of chancres in the ſecond voyage, ſoon after leaving Port Jackſon; and although he might have been cured on board, the poſſibility of his introducing the infection was conſidered as a matter of ſuch a ſerious conſequence, that he was not permitted to proceed on the voyage, but ſent on ſhore at Norfolk Iſland.

‡ Mr Baſs, ſurgeon R. N. the diſcoverer of the Streights in New Holland, which bear his name.

of infection, and bids fair o deſtroy the intentions of the miſſion; for from that ſettlement they have already received, and will continue to receive, deſerters, whoſe baneful example and inſtructions will not fail to counteract the benefit which would otherwiſe accrue to theſe courteous iſlanders from its exertions.

III.

Remarks on the Depopulation of Otaheite and Eimeo, with an Account of ſome of the moſt common Diſeaſes. By JOHN WILSON, Surgeon to his Majeſty's Ship Porpoiſe.

ON comparing the preſent population of theſe iſlands with what exiſted at the time of Captain Cook's voyages, an intereſting, but, at the ſame time, moſt deplorable picture preſents itſelf. The reduction of the inhabitants is ſo incredibly great, that, were it not for the acknowledged accuracy of that great navigator in moſt particulars, we could with difficulty ſuppoſe him to have been in earneſt, when he calculated the number on Otaheite at two hundred and four thouſand, eſpecially as it has been lately aſcertained by the miſſionaries, by a mode almoſt amounting to the accuracy of actual enumeration, that the number of ſouls on the iſland does not amount to ſeven thouſand. However, allowing the former to have exceeded by one half, there ſtill remains a reduction of ninety-five thouſand in about the ſpace of thirty years; a mortality to which there is perhaps no parallel on record.

That the iſland was formerly infinitely more populous than at preſent is beyond a doubt, and perhaps the many well-conſtructed and extenſive morais or places of worſhip, now ſeen in a ruinous condition, afford one of the beſt proofs of a former numerous population; and the aſſertions of the inhabitants, which deſerve ſome credit in this inſtance, corroborate this conjecture; for they ſay, that, at no very late period, no land was unoccupied, as is the caſe at preſent, and that the population now will not bear compariſon with what exiſted then.

The introduction of the venereal diſeaſe by Europeans has been hitherto invariably conſidered by voyagers as the moſt active cauſe of their declenſion; but from what has been

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already related reſpecting that diſeaſe, it is preſumed no one will impute it to that ſource, eſpecially as other cauſes are obvious, and are at preſent operating with a moſt fatal ſway; the operation of ſome of which appears to me to have commenced about the time of the viſits of Cook and others, and to have had a gradual increaſe of force ever ſince.

The diſeaſes which have had the greateſt ſhare in the depopulation may be reduced to the following, viz. Fever, dyſentery, phthiſis pulmonalis, and ſcrofula. But by far the greateſt proportion muſt be aſcribed to the firſt, which the inhabitants name Hottute, and which, at the beginning, is moſt commonly of the intermittent kind, but, before its termination, which is almoſt univerſally fatal, it becomes a remittent. On the other hand, if the patient recovers, ſcrofula ſo commonly ſupervenes in the form of glandular ſwellings and diſtortions of the thorax and ſpine, that the natives hail theſe dreadful maladies as a very ſalutary kind of criſis *. Although many who were affected with this complaint in all its ſtages daily came under my obſervation, it was found to be impracticable, from their conſtitutional ficklenefs and levity, to perſuade any one patient to remain ſtationary in a place where I could conveniently attend to the progreſs of the diſeaſe; conſequently my knowledge reſpecting it muſt be very circumſcribed. At the beginning the head and ſtomach are much affected, and the good effect of emetics in cutting it ſhort was completely aſcertained in the few caſes for which I preſcribed them; but it was alſo obſerved, that the diſeaſe often recurred in two or three weeks.

It was impoſſible to learn with certainty, whether it is eſteemed contagious by the natives, as they differed as much in their accounts upon this head as in moſt other caſes; however, the many deſerted houſes which are to be met with, the whole of whoſe inhabitants had fallen victims to it in a ſhort ſpace of time, afford a preſumption that it is infectious †; at the ſame time, it ſhould be obſerved, that they are much expoſed to a very powerful cauſe of fever, from the many marſhes that are

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* We do not read, in any voyages, that many caſes of deformity were obſerved among theſe iſlanders; but it is now ſo common, that the moſt ſuperficial obſerver would conclude them to be comparatively a deformed race.

† Although ſeveral affected with this fever were on board of our ſhip, and even ſlept there, yet none of the crew were attacked with it; and, among the miſſionaries, only one of their wives has had it. She recovered, and, I was informed, had taken conſiderable quantities of bark.

are to be found on theſe iſlands; and theſe ſpots, on account of their conveniency for the favourite habit of bathing, are generally preferred for erecting their houſes. The uſual cuſtom of ſleeping on the ground, and even in the open air, expoſes them much to theſe miaſmata, and perhaps the miſſionaries could not exerciſe their humanity in a more laudable manner than by teaching them to conſtruct bedſteads, and impreſſing them with their utility*.

I do not know that they uſe any thing of a medicinal nature in this complaint, but they ſeem to be well acquainted with the beneficial effects of a change of air, for they frequently tranſport themſelves to Tethevroa, and other iſlets, about eight leagues to the northward, from whence they generally return in good health and condition. Indeed, theſe iſles are the Montpellier of Otaheite, to which not only invalids, but perſons in good health, reſort, particularly females, with the view of improving their complexion and general appearance. Their principal food there is fiſh.

Dyſentery is to be ranked in the ſecond claſs of their mortal diſeaſes, and it is pretty frequent, and often fatal. While the Porpoiſe was at Eimeo, it raged with great violence, there being ſcarcely a houſe on the iſland in which there was not found one or more afflicted with it.

Phthiſis pulmonalis, I believe, is more frequent, and proves ſooner fatal than with us.

Rheumatiſm was frequently met with, and it is in this diſeaſe that the operation of taroomee, or ſqueezing the affected parts, is performed with advantage. Several caſes of elephantiaſis were obſerved, but it is by no means common.

Scrofulous tumours and ulcers appear to be much more common than in Britain, and this diſorder, as with us, chiefly attacks people with delicate complexions, and thoſe who, from this and ſome other external appearances, are ſuppoſed to be peculiarly prediſpoſed to it. It generally makes its appearance before or about the age of puberty, and, I believe, almoſt univerſally attacks thoſe whom the fever ſpares, which ſeems to leave the ſyſtem in a ſtate well adapted for its action. The glands about the neck are moſt commonly affected. However, it ſhould be obſerved, that the moſt common dreſs of the natives covers only a ſmall portion of their bodies, and conſequently their ſores, if they have any, are expoſed; and this will lead a ſuperficial obſerver to imagine, that they are afflicted with this diſorder in an infinitely greater proportion than in

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* *Bedſteads* made by the miſſionaries were ſometimes obſerved.

European countries, where the face and hands only are left uncovered.

Theſe are, I think, their principal dangerous diſeaſes; and although they very probably have many others to which humanity is ſubjected, they may likewiſe be unacquainted with ſome to which more refined nations are liable.

Epilepſy and, I think, hyſteria are not uncommon, but confer a degree of ſanctity on the proprietors of them, as they are ſuppoſed, during the fit, to be favoured with ſupernatural viſions; and although it is not altogether connected with the preſent ſubject, an inſtance which came under my obſervation proves that they, in common with the ignorant part of more civilized nations, believe theſe and ſome other ſpaſmodic diſeaſes originate from the immediate impulſe of a good or bad ſpirit. In one of my excurſions I was introduced to a middle aged woman, who was ſaid to be occaſionally favoured with the gift of ſeeing into futurity; and a ſick child happening to be in the ſame houſe, whoſe ſpeedy diſſolution appeared to me to be certain, ſhe received the divine impulſe, or, as the natives expreſſed it, the eatooa, or God entered her, for the purpoſe of predicting its fate.

She accordingly ſeated herſelf on the ground, and continued in a muſing attitude for about a quarter of an hour, when ſhe was violently ſeized with a violent hyſteric paroxyſm, during which three men held her down with difficulty. The fit laſted about ten minutes, and, when ſhe recovered her ſenſes, ſhe gave a favourable prognoſtic. This, I had no doubt, was a real hyſteric fit, brought on, perhaps, by the force of imagination, which is acknowledged to have great influence in this and ſome other analogous diſeaſes. There are even ſome pretenders to this ſcience who are generally believed to be impoſtors; but as what they utter during the fit has great weight in their moſt important national affairs, this ſuppoſition, perhaps, often ariſes from a colliſion of intereſts, and the many different interpretations which their incoherent rhapſodies will always admit of.

Some of the diſeaſes which at preſent ravage theſe iſlands may, by ſome, be ſuppoſed to have been imported; but of this we can have no evidence; and probably all the elucidation the ſubject will admit of may be found in the analogy of many countries which have been long healthy and populous, ſuddenly becoming overwhelmed with diſeaſe and death, from ſome revolution in nature, which is likely always to remain a myſtery.

Although diſeaſe muſt have had a very powerful influence on the depopulation, yet the greateſt ſhare is to be attributed to a cuſtom which, although it has been practiſed as a ſyſtem by others, perhaps more civilized people, is of a nature the moſt barbarous and cruel that ever diſgraced the ſpecies. This is infant murder, which is carried to ſuch an extent, that ſome of the beſt informed of the miſſionaries have aſſerted, that at leaſt two-thirds of the whole of the births on the iſland are deſtroyed the moment they have ſeen the light*. Not only is the offspring of an unequal connexion with reſpect to rank, either on the male or female ſide, invariably deſtroyed, but young men and women who are every way equal, frequently agree to murder the innocent fruit of their pleaſures†; and more females are deſtroyed than males.

They appear to have no idea of any criminality being attached to this deed, and many of the women who had born children, on being requeſted, did not ſcruple or appear abaſhed to tell us the number they had deſtroyed. The young king's wife, although not twenty years of age, has, I think, killed two, which, ſhe pretended, were begot by ſome of her domeſtic attendants.

I have remarked, that at leaſt two-thirds of the whole of the women on Otaheite are either middle aged or old, and that children are principally obſerved to be poſſeſſed by the former: for it is a very rare occurrence, indeed, to meet with a young woman rearing a child: likewiſe, that the whole of the females do not amount to above one-tenth part of the males; from which it may be inferred, that they do not often ſave their children until about or after their meridian, and that infant-murder has been of late years more frequent than at the time when thoſe middle-aged and old women were born. The more frequent deſtruction of females ſufficiently accounts for their diſparity to the males. It is a mere queſtion of courſe with the natives, on hearing the news of a birth, to aſk whether it is preſerved.

They have many abſurd cuſtoms in their treatment of children, particularly females, which certainly render the rearing of them exceedingly troubleſome; but there is nothing of a ſacrificial nature in their deſtruction: for, although they do not ſuppoſe that they incur their diſpleaſure by it, yet they do not pretend that it is acceptable to any of their divinities: and, indeed, although they have ſome notion of a future ſtate, it does not ſeem to have any influence whatever on their moral actions in this world.

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* This cuſtom has by ſome been conſidered to be peculiar to a claſs of people called Arreoyies; but, from the diſſolute life they lead, they muſt have much leſs frequent occaſion to practiſe it than the other inhabitants.

† They alſo induced abortion by preſſure, but this is a painful operation, and is ſometimes fatal.

I am of opinion that infant-murder is more frequently practiſed ſince their connexion with us, and that it will continue to increaſe in proportion to the number of ſhips which may for the future viſit them, principally from the following conſiderations:

Firſt, From all the information which I could procure, I believe their only inducement to this cruel deed, independent of inequality of rank, or being an Arreoyie, which are always inſurmountable, and from the conſtruction of their ſucceſſion *, are love of pleaſure and avarice; and theſe paſſions, but more particularly the latter, have gained much ground ſince their intercourſe with us: indeed, I have often been ſtruck with aſtoniſhment, when obſerving the eagerneſs with which they hoard European manufactures †. They are alſo as well aware as we are, that the charms of women who rear families ſooner decay; and having experienced that female beauty is always a marketable article with their viſitors, they have recourſe to murder to preſerve it.

Secondly, At the Society Iſlands, where the ſame manners and cuſtoms prevail, and which have been leſs frequently viſited by Europeans, infant murder is not ſo often practiſed; conſequently theſe iſlands are more populous, although they appear at preſent to labour under diſeaſe in the ſame degree as Otaheite. It muſt, therefore, be concluded, that the frequent viſits of ſhips tend to decreaſe their numbers, not only by inducing a ſcarcity of food, but by ſtriking at the very root of population ‡.

War, undoubtedly, muſt be ſuppoſed to have conſiderable influence on their declenſion. In that which occurred in the interval between our voyages, it was ſaid that five or ſix hundred periſhed, but theſe were chiefly old men and women; and this was the only war of any conſequence ſince the arrival of the miſſionaries. There is alſo reaſon to believe that it was more frequent formerly than of late years, as the Bounty's mutineers and other deſerters ſtrengthened the authority of the preſent reigning family to a degree never before enjoyed by any chief. Therefore, war cannot be admitted to have had much influence in the preſent deficiency of numbers.

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* The moment a ſon is born, he is conſidered as the head of his family, and the father ſinks into his executor, until he is able to manage his affairs himſelf. The effects of this abſurd cuſtom muſt be ſufficiently obvious.

† An old female chief favoured me with a ſight of her treaſure-cheſt; among other articles, it contained 46 axes and hatchets.

‡ The oftentimes ſuperabundant quantities of proviſions which the chiefs bring on board of ſhips, has induced voyagers to believe that a never-failing plenty reigns here; however, this is by no means the caſe, and, even in plentiful times, the common people do not often taſte animal food.

The cuſtom of offering human ſacrifices we have no reaſon to believe to have been more frequent ſince their diſcovery. Probably the number offered will amount to twenty in a year, and, as they are always males, this cannot have a very powerful operation.

Polygamy may alſo have ſome effect; but as this cuſtom muſt be ſuppoſed always to have exiſted, it cannot be conſidered to have had contributed to preſent depopulation.

IV.

Report of the Phyſical and Mathematical Claſs of the Inſtitute, upon the Queſtion, Are thoſe Manufactures which emit a diſagreeable Smell prejudicial to Health?

[Read at the Sitting of the 26th Frimaire, year 13. by Meſſ. Guyton-Morveau and Chaptal *.]

THE Miniſter of the Interior has conſulted the Claſs upon a queſtion, the ſolution of which is of the greateſt importance to our manufacturers, Is the neighbourhood of certain manufactories prejudicial to health?

The ſolution of this problem muſt appear the more important, as, by the confidence naturally placed in the opinions of the Inſtitute, it may henceforth form the baſis of judicial deciſions when the fate of a manufactory and the health of the people are concerned.

This ſolution is the more urgent, and is become the more neceſſary, as the fate of the moſt uſeful eſtabliſhments, nay, even, the exiſtence of many arts, has hitherto depended on ſimple regulations of the police, and as ſome, driven to a diſtance from materials, from labour, or from a due conſumption, by prejudice, ignorance, or jealouſy, continue to ſtruggle with diſadvantage againſt the numberleſs obſtacles oppoſed to their proſperity. Hence we have ſucceſſively ſeen manufactures of acids, of ſal ammoniac, Pruſſian blue, beer, and leather, baniſhed from the precincts of cities, and hence theſe ſame eſtabliſhments are ſtill daily complained of by captious neighbours, or invidious rivals.

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* See Annales de Chimie, vol. liv. p. 86.

So long as the fate of theſe manufactures is inſecure; ſo long as a legiſlation, purely arbitrary, can interrupt, ſuſpend, or fetter the efforts of the manufacturer; in a word, ſo long as a mere magiſtrate of police ſhall wield in his hands the proſperity or the ruin of a manufacturer, how can we ſuppoſe that he will have the imprudence to embark in enterpriſes of this nature? How can we hope to ſee the manufacturing induſtry eſtabliſhed on ſo feeble a baſis? This ſtate of uncertainty, theſe perpetual animoſities exiſting between the manufacturer and his neighbours, the eternal apprehenſions he muſt entertain with regard to the fate of his eſtabliſhment, confine and paralyſe his efforts, and gradually impair his property and his ſpirit of enterpriſe.

It is then of material importance to the proſperity of the arts that limits ſhould be fixed, which leave nothing to the caprice of the magiſtrate; which point out to the manufacturer that ſphere within which he may, with freedom and ſecurity, exerciſe his induſtry, and guarantee to the neighbouring proprietor the ſure enjoyment of his health, and produce of his eſtate. To ſolve this important problem, it appears to us indiſpenſable to take a view of each of thoſe arts againſt which the greateſt objections have been ſtarted.

To this end, we ſhall divide them into two claſſes. The firſt will comprehend all thoſe in whoſe operations gaſeous effluvia, the conſequence of putrefaction or fermentation, which may be accounted unpleaſant to the ſmell, or noxious in their effect, eſcape into the atmoſphere.

The ſecond claſs will include all thoſe where, by the action of fire, the artiſt developes and diffuſes in vapours or in gas, various principles which are more or leſs diſagreeable to breathe, and are reckoned more or leſs prejudicial to health.

In the former we may inſert the ſteeping of flax and hemp; the manufacture of catgut; ſlaughter-houſes; ſtarch manufactories; tanneries; breweries, &c. In the latter, the diſtillation of acids, of wines, of animal matters; the art of gilding metals; preparations of lead, copper, mercury, &c.

The arts compriſed in the firſt claſs, conſidered with regard to public health, deſerve a moſt particular attention; becauſe the fumes which are emitted by fermentation or putrefaction are really prejudicial to health in ſome caſes, and under ſome particular circumſtances. For example, the ſteeping of flax, which is practiſed in ſtagnant pools or pits, infects the air, and is fatal to fiſh. The diſeaſes to which this gives riſe are all known and deſcribed. Wiſe regulations, therefore, have ordained that this operation ſhould be performed without the limits of cities, at a certain diſtance from all dwellings, and in waters whoſe fiſh are of no importance to the inhabitants. Theſe regulations ſhould undoubtedly be maintained; but as the execution of them is attended with inconvenience, it is deſirable that the proceſs of M. Brâle, the ſuperiority of which is confirmed by the teſtimony of M. M. Monges, Berthollet, Teſſier, and Molard, ſhould ſoon be known and adopted.

Other operations, which are practiſed on vegetables, or certain products of vegetation, in order to obtain from them fermented liquors, as in breweries; to prepare colours, as in manufactories of turnſol, archil, and indigo; or to diveſt them of ſome of their principles, as in ſtarch manufactories, paper mills, &c. do not appear to us, by their nature, to furniſh any cauſe for ſolicitude on the part of the magiſtrate. At all events, the fumes which ariſe from theſe fermenting matters can be dangerous only in the immediate vicinity of the veſſels and apparatus which contain them; they ceaſe to be ſo the moment they are combined with the external air; therefore a little prudence only is neceſſary to avoid danger. Moreover, this cannot affect the inhabitants of neighbouring dwellings; it concerns and can injure only thoſe employed about the works; ſo that a law, which ſhould order the removal of theſe works without the cities, and to a diſtance from all habitations, would be, on the part of government, an act at once oppreſſive and unjuſt, in oppoſition to the progreſs of the arts, and not at all likely to remedy the evil ſuppoſed to be produced.

Some preparations which are extracted from animal bodies often require the putrefaction of theſe ſame bodies, as in thoſe connected with the making of catgut; but more frequently the animal ſubſtances employed in manufactures are liable to putrefaction, by remaining too long in the manufactory, or by reaſon of too hot a temperature. This is particularly exemplified in the dying of red cotton, where much blood is uſed. The infection which this corrupted matter exhales is far diffuſed, and forms in the neighbourhood an atmoſphere very diſagreeable to breathe. It would be well, therefore, to cauſe the materials to be frequently renewed, in order to prevent their corruption, and to keep the place clean, ſo that none of the refuſe of the animal ſubſtances employed ſhould be ſuffered to remain too long, and thereby putrefy.

In this laſt reſpect, ſlaughter-houſes are attended with ſome inconvenience; but this is by no means of ſo ſerious a nature as to demand their baniſhment without the limits of cities, and their being collected in one place, as ſpeculators are daily ſuggeſting to government. A little attention on the part of the magiſtrate, that butchers do not throw out the blood and certain offals of the animals which they kill, is ſufficient to obviate any diſguſting and unhealthy effects ariſing from ſlaughter-houſes.

The manufacture of *poudrette* is now eſtabliſhing itſelf in all the great cities of France; and the operation by which night ſoil is reduced to a ſtate of powder neceſſarily diffuſes for a long time a moſt diſagreeable ſmell. Eſtabliſhments of this kind ought therefore to be formed in airy ſituations, and far from any dwelling, not that we regard the gaſeous exhalation from them as prejudicial to health, but we cannot deny that it is inconvenient, tainted, diſagreeable, and difficult to breathe. On this account, therefore, theſe ought to be removed to a diſtance from the habitation of man.

There is one very important obſervation to be made on the ſpontaneous decompoſition of animal ſubſtances, which is, that the emanations from them appear to be the leſs dangerous, in proportion as the matters undergoing putrefaction are leſs humid. In this latter caſe, a conſiderable quantity of carbonate of ammonia eſcapes, which imparts its predominant character to the other matters volatilized, and corrects the bad effect of thoſe which would otherwiſe be deleterious. Thus, the decompoſition of ſtercoraceous matter, and of the refuſe of the cocons of the ſilk-worm, in the open air, and in ſituations the poſition and inclination of which permit the eſcape of the liquids, evolve an enormous quantity of carbonate of ammonia, which counteracts the poiſonous quality of certain other vapours, whilſt theſe ſame ſubſtances, decompoſed in water, or very wet, emit ſweetiſh and nauſeous fumes, the reſpiration of which is extremely dangerous.

The numerous arts in which the manufacturer produces and diffuſes into the air in the courſe of his operations, and by the aid of fire, vapours more or leſs diſagreeable to breathe, conſtitute the ſecond claſs which we are to examine. Theſe, more intereſting than the former, and much more intimately connected with the proſperity of national induſtry, are ſtill oftener objects of reference to the deciſion of the magiſtrate; and on this account, they appear to us deſerving of more particular attention.

We ſhall begin our examination with the making of acids.

The acids, againſt the preparation of which the neighbours of a manufactory may complain, are, the ſulphuric, nitrous, muriatic, and acetic. The ſulphuric is obtained by the burning of a combination of ſulphur and ſaltpetre. It is very difficult, in this operation to prevent a more or leſs obſervable ſmell of ſulphureous acid from being diffuſed around the apparatus in which the combuſtion is going forward; but, in works ably contrived, this ſmell is ſcarcely ſenſible in the manufactory itſelf; the workmen daily breathe it with impunity, and any complaint on the part of the neighbours muſt be unfounded. When the art of making ſulphuric acid was introduced into France, the popular voice was loud in oppoſition to the firſt eſtabliſhments: the ſmell from the matches uſed in our houſes contributed not a little to exaggerate the effect ſuppoſed neceſſarily to follow the rapid burning of ſome hundred pounds weight of ſulphur. The opinion at the preſent day is ſo completely reverſed, that we ſee many of theſe manufactures flouriſhing in peace and quietneſs in the midſt of our cities.

The diſtillation of aquafortis, and of ſpirit of ſalt (nitrous and muriatic acids), is not more dangerous than the making of ſulphuric acid. All the proceſs is conducted in veſſels of earthen ware or glaſs, and the chief concern of the manufacturer is undoubtedly to diminiſh the loſs or volatilization as much as poſſible. Nevertheleſs, whatever attention be given to the proceſs, the air which is breathed in the manufactory is always impregnated with the peculiar ſmell of each acid, notwithſtanding which the reſpiration there is free and ſafe, the people daily employed there are not at all incommoded by it, and any complaint from neighbours would be unjuſt.

Since the manufactories of white lead, verdegris, and ſugar of lead, have become ſo numerous in France, vinegar has come into more general uſe. In diſtilling this acid, to render it more fit for ſome of theſe uſes, a very ſtrong ſmell of vinegar ſpreads itſelf, which is not dangerous; but when a ſolution of lead in this acid is evaporated, the vapours aſſume a ſweetiſh character, and produce upon thoſe who are in the habit of breathing them all the effects peculiar to the vapours of lead itſelf. Happily theſe effects are confined to the men who work in the building, and cannot injure thoſe who reſide in the neighbourhood.

Preparations of mercury and lead, thoſe of copper, antimony, and arſenic, the proceſs of gilding metals, are all ſomewhat dangerous to thoſe who inhabit and aſſiſt in the works; but the effects are confined within the encloſure of the manufactories, and are dangerous only to thoſe concerned in them.

It is an object deſerving of the attention of chemiſts to inveſtigate the means of preventing theſe unpleaſant effects. Already much inconvenience has been obviated by the help of chimnies which convey the vapours out of the reach of reſpiration. At preſent, all the attention of adminiſtration ought to be confined to directing ſcience towards the improvements of which theſe proceſſes are ſuſceptible with regard to health.

The making of Pruſſian blue, the extraction of carbonate of ammonia by the diſtillation of animal bodies, in the new works of ſal ammoniac, produce a great quantity of fœtid vapours. In truth, theſe exhalations are not dangerous to health; but, in theſe times, to be reckoned a good neighbour, it is not enough not to be dangerous, we muſt alſo not be diſagreeable. The projectors of theſe eſtabliſhments, when about to fix upon a ſituation, ought to prefer one at a diſtance from any dwelling; but when the eſtabliſhment is already formed, we ſhould be careful of adviſing the magiſtrate to order its removal. In this caſe, it will ſuffice to require of the proprietor that he ſhall carry his chimnies to ſuch a height as to diſſipate in the air the diſagreeable vapours produced by his operations. This plan is particularly well calculated for the making of Pruſſian blue; by putting it into execution, one of ourſelves has been the means of preſerving in the centre of Paris one of the moſt important manufactories of this kind, againſt which the neighbours had already combined.

In the report which we ſubmit to the Claſs, we have thought it our duty to confine ourſelves to the chief manufactories, againſt which violent complaints have been preferred at various times and places; and, after what has been ſaid, it is apparent that the neighbourhood of a few only is prejudicial to health.

Hence, we cannot too ſeriouſly adviſe the magiſtrates intruſted with the care of the public health and ſafety to diſmiſs thoſe ill-grounded complaints, which too often are directed againſt eſtabliſhments, daily threatening the proſperity of the honeſt manufacturer, retarding the progreſs of induſtry, and compromiſing the fate of the arts themſelves. The magiſtrate ſhould be on his guard againſt the inſinuations of a jealous and troubleſome neighbour; he ſhould carefully diſtinguiſh between what is only inconvenient or diſagreeable, and what is really noxious or dangerous; he ſhould recollect that the uſe of pit-coal was, for a long time, aboliſhed, under the frivolous pretext of its being unwholeſome; he ſhould, in a word, be fully ſenſible, that, by liſtening to complaints of this nature, not only the eſtabliſhment of many uſeful arts in France might in time be prevented, but that it might be the means of inſenſibly baniſhing from cities, farriers, carpenters, joiners, braziers, coopers, founders, weavers, and all thoſe whoſe profeſſion is more or leſs inconvenient to the neighbour. For certainly theſe trades are more diſagreeable to the neighbourhood than the manufactories above mentioned, and the only advantage they enjoy over them is their antiquity. Their right of toleration has been eſtabliſhed by time and neceſſity, and we make no doubt, but when our manufactories become older and better known, they will peaceably enjoy the ſame advantage in ſociety. In the mean time, we think the Claſs ought to profit by this circumſtance, to place them under the ſpecial protection of government, and declare that manufactories of acids, ſal ammoniac, Pruſſian blue, ſugar of lead, white lead, and of ſtarch, ſlaughter-houſes, breweries, and tan-pits, are not prejudicial to the health of the neighbourhood, when well conducted.

We cannot ſay ſo much for the ſteeping of hemp, catgut manufactories, lay-ſtalls, and all thoſe eſtabliſhments where great quantities of animal or vegetable matter are expoſed to humid putrefaction; for, beſides the diſagreeable ſmell that exhales from theſe, vapours are emitted which are more or leſs hurtful.

We ſhould add, that although the manufactures of which we have been ſpeaking, and which we have conſidered as not being hurtful to health by their vicinity, ſhould not be removed, yet adminiſtration ſhould be deſired to exerciſe over them the moſt active watchfulneſs, and conſult perſons capable of preſcribing to the proprietors the moſt proper meaſures for preventing the ſmoke and ſmell from being diffuſed in the neighbourhood. This end may be attained by improving the proceſſes, by elevating the outer walls, ſo as to prevent the vapours from being diffuſed in the neighbourhood; by improving the chimnies, which might be ſo conſtructed that the ſmoke itſelf be burnt in the fire-place, or condenſed; by keeping the premiſes very clean, ſo that there ſhall be no putrefaction in them; and by conveying off into deep pits all the remains ſuſceptible of fermentation, ſo as not to become in the leaſt inconvenient to neighbours.

We muſt again obſerve, that when new eſtabliſhments are about to be formed for making Pruſſian blue, ſal ammoniac, leather, ſtarch, and all thoſe manufactories in general which emit vapours offenſive to the neighbours, or which are in frequent danger of fire or exploſions, it would be at once wiſe, juſt, and prudent, to declare that theſe eſtabliſhments cannot be formed within the limits of cities, and near habitations, without ſpecial authority; and that where the founders of them do not comply with this indiſpenſable condition, the removal of ſuch eſtabliſhments may be ordered without indemnity.

The reſult, then, of our report is, 1*ſt*, That eſtabliſhments for the making of catgut, dunghills, ſteeping of hemp, and, in general, all thoſe in which a great maſs of animal or vegetable matter is heaped up to rot or putrefy, are prejudicial to health, and that they ought to be carried on at a diſtance from cities, and every other habitation. *2dly*, That buildings from which diſagreeable ſmells are emitted by the action of fire, as in the making of acids, of Pruſſian blue, and ſal ammoniac, form a dangerous neighbourhood only from want of due precaution; and that the care of adminiſtration ought to center in an enlightened and active ſuperintendence, having for its objects the perfection of the proceſſes employed, the management of the fire, and the maintenance of cleanlineſs. *3dly*, That it would become a good and wiſe adminiſtration to enact regulations for prohibiting in future, without previous authority, the eſtabliſhment of manufactories in towns, or near dwelling-houſes, the vicinity of which is neceſſarily dangerous or inconvenient. In this claſs may be comprehended the manufactories of *poudrette*, tan-pits, ſtarch-manufactories, founderies, melting-houſes for tallow, ſlaughter-houſes, rag-warehouſes, manufactories of Pruſſian blue, varniſh, glue, ſal ammoniac, potteries, &c.

Such are the concluſions we have the honour to ſubmit to the Claſs.

Theſe concluſions have been approved of by the Inſtitute, and tranſmitted to Government, with an invitation to adopt them as the baſis of its deciſions.

OBSERVATIONS BY THE EDITORS.

THE preceding report we conſider as particularly intereſting, not only on account of its containing the principles upon which the law of nuiſances is to be executed in one of the moſt enlightened nations of the world, but alſo as affording us an opportunity of calling the attention of the medical men of this country to ſo important a ſubject.

Although, in this great manufacturing kingdom, numberleſs deciſions connected with it have been given, the principles by which they ought to be regulated have never been ſcientifically developed, nor have they, ſo far as we know, been ever collected or arranged. Hence they are, in general, arbitrary, often contradictory, and ſometimes unjuſt. What on one occaſion has been proſcribed as a nuiſance, on another has been declared to be a matter of indifference, and, on a third, has been cheriſhed as ſalutary. But ſo long as this uncertainty continues, ſo long as juries and judges are not in poſſeſſion of general principles to guide them in their determinations, innocent eſtabliſhments muſt run the riſk of being ſuſpended on groundleſs fears, or pernicious ſpeculations tolerated until they have committed irreparable injury.

Although it is rather the buſineſs of the lawyer to collect deciſions, yet this ſubject is ſo cloſely connected with the prevention of diſeaſe, and queſtions concerning it often, as indeed they always ſhould be, referred to medical men for their opinions, that we do not think that a few pages of our Journal could be better employed than in recording, from time to time, thoſe important caſes on which our correſpondents may have been conſulted. In this way, we are not without hopes that our Numbers may render an eſſential ſervice to the adminiſtration of juſtice, by collecting materials for a ſcientifical elucidation of this branch of medical police.

Blackſtone defines a nuiſance to be "any thing which worketh hurt, inconvenience, or damage." Nuiſances, therefore, may affect either inanimate matter or living animals. The former claſs of nuiſances ſeldom comes within the ſphere of the phyſician, the latter is intimately connected with the exerciſe of his profeſſion. It may, again, be ſubdivided into thoſe nuiſances which merely excite unpleaſant ſenſations, and thoſe which are injurious to health. To the former variety belong diſagreeable ſights, ſounds, and ſmells, when they do not impair or endanger health. Any perſon, who fixes his abode near a nuiſance of this deſcription, has only himſelf to blame, and it cannot be removed until its poſſeſſor be indemnified for the injury he may thereby ſuſtain. But a ſpeculator has no right, with a view to his own advantage, to erect any eſtabliſhment which ſhall diminiſh the value of the neighbouring property, or render unpleaſant an abode which was formerly otherwiſe. In every caſe the offender may juſtly be obliged to uſe every precaution to leſſen, as much as poſſible, the nuiſance complained of; but in this country, whoſe proſperity ſo much depends on its manufactures, the ſpirit of enterpriſe muſt not be checked on capricious or arbitrary objections.

The ſecond claſs is of infinitely greater importance, and the nuiſances included under it not being, like the former, direct objects of our ſenſes, are more obſcure, and give riſe to greater contrariety of opinion. In general, however, they act either by rendering the atmoſphere unwholeſome to breathe, or by contaminating public waters, ſo that they become unfit for the uſe of man and domeſtic animals, or poiſonous to the fiſh contained in them. The atmoſphere may be rendered unwholeſome

ſome by being deprived of its oxygen, or by being loaded with deleterious vapours.

The firſt effect can only take place in very confined ſituations, and can ſcarcely ever become a public nuiſance. If, however, in any caſe it ſhould be ſuſpected, it admits of poſitive determination by eudiometrical experiments.

It is to the ſecond head of this diviſion that the report of the French Inſtitute is chiefly confined, which, upon the whole, is the reſult of much ſcientifical and political information, but, in ſome inſtances, ſeems rather too deſpotically and raſhly to ſacrifice the rights of the people to the appearances of national proſperity. Indeed, previous to experience, it is no eaſy matter to determine what vapours are capable of rendering the atmoſphere unwholeſome, for, to the queſtion of the French Miniſter of the Interior, we have no heſitation in giving a decided negative. A diſagreeable ſmell is by no means a certain criterion of an unwholeſome atmoſphere. And, on the other hand, the air is often peſtilential, when, to our ſenſes, it ſeems uncontaminated, and unfortunately eudiometry is not yet capable of elucidating this important queſtion; we muſt therefore almoſt entirely content ourſelves with the information derived from analogy and experience. The principal cauſes, however, which render the atmoſphere unwholeſome, are either the volatilization of poiſonous metals by fire, or the decompoſition of organic matters, eſpecially by humid putrefaction. The danger from the firſt of theſe ſources may fortunately be almoſt entirely obviated, by connecting with the works proper chimnies, and other condenſing apparatus, and any deficiency in this reſpect is, on no account, to be tolerated.

But, of all theſe ſources of diſeaſe, that which requires the moſt active vigilance of the police is the contamination of the air by putrefying animal or vegetable matters, becauſe it is the moſt common, leaſt ſuſpected, and moſt dangerous. Were a ſingle death to be traced to arſenical vapours from a ſmelting-houſe, the eſtabliſhment would be inſtantly ſuſpended; whereas we could point out ſhambles which have been a ſource of diſeaſe and death year after year. It is dreadful to think that we ſhould have to record a fact, a crime, of ſuch enormity. For is it not a crime of the moſt atrocious nature to bring the lives of a whole neighbourhood, nay, of a whole diſtrict, into danger, from indolence or avarice? A ſlaughter-houſe, when the offals are regularly removed, is no nuiſance; but when the filth and blood are collected in heaps to putrefy, it is peſtilence itſelf. Surely ſuch an abuſe is tolerated in this civilized country, in theſe enlightened times, only becauſe it is unknown to thoſe who would put a ſtop to it, from being confined to the neighbourhood of the very loweſt claſs, who are ignorant of their rights, or do not complain. But, though the poor are indeed the immediate ſufferers, the rich are eventually in danger; for inſtances are not wanting of peſtilences, engendered under ſuch circumſtances, depopulating whole cities. Let, then, all ſuch trades, not in themſelves dangerous, but becoming ſo from indolence or avarice, be exerciſed under the moſt jealous and unremitting ſuperintendence. Let the puniſhment attending the breach of ſuch regulations as may be thought neceſſary be exemplary and ſevere. The welfare of the community is intereſted. To prevent the introduction of foreign contagion, our whole commerce is ſubjected to reſtraints, which are often unneceſſary, ſometimes oppreſſive. But the danger from home-bred peſtilence is at leaſt as great, and ought to be counteracted by meaſures equally prompt and energetic.

The degree to which water is contaminated by any cauſe is more eaſily eſtimated by direct experiment and obſervation. When the fiſh are poiſoned, it is certainly unfit for the uſe of man, but, even when they continue to live, it may be ſometimes rendered diſguſtful and injurious; a nuiſance which ought not to be permitted, if a town, or even a hamlet, depend upon it for an article of ſuch prime neceſſity.

> —— Cunctis fluat unda ſalubris
> Quæ levet arentem, ſi cupis, apta ſitim.

V.

Hiſtory of the Guinea Worm, and the Method of Cure employed by the Hindoos.

THE account of the dracunculus, or Guinea worm (Gordius Medinenſis), contained in the following correſpondence is highly intereſting. Mr Dubois is a reſpectable and learned miſſionary, who joins a talent for minute obſervation to a perfect knowledge of the languages of the Eaſt. The anſwer from Dr Anderſon renders the hiſtory of this ſingular diſeaſe more complete, and the notes have been added, with the view of explaining ſome particular expreſſions, by an intelligent phyſician, Dr Griffiths, who has practiſed ſome time in India, and by Dr De Carro of Vienna, to whom we are obliged for forwarding this communication.—*Editors.*

Letter to Dr James Anderſon, Phyſician-General at Fort St George.

Dear Sir,

The principal motive of this application is to communicate to you two popular remedies, whoſe efficacy I have witneſſed in a great number of caſes, againſt two diſorders prevailing in this and many other diſtricts. I mean the diſeaſe known to Europeans under the name of *Guinea worm*, to Hindoos under that of *Naramboo* or *Nurapoochalandy*, and the pain occaſioned by the ſting of ſcorpions. Theſe two ſimple, and, as I ſuppoſe, inoffenſive remedies were communicated to me by the ſame perſon, a native doctor, who adminiſtered them in this diſtrict with much ſucceſs to a great number of perſons, who almoſt daily called upon him for relief. As that perſon was under obligations to me, I prevailed upon him to communicate them; and as he exacted no promiſe of ſecrecy, I hope I ſhall not be accuſed of a breach of confidence by making them public. Since I became acquainted with theſe remedies, I have had many opportunities of trying their efficacy. I chiefly adminiſtered that which is uſed againſt the Guinea worm, and almoſt always with ſucceſs. I ſay *almoſt always*, becauſe, in two or three caſes, it failed of producing its effect; the perſon who took it a firſt time, refuſing to take it again, which is often neceſſary when the diſeaſe is inveterate. However obſtinate it may be, the remedy, being taken a ſecond time, will carry it off, by forcing the worm to come out, if it be already formed, or by preventing its formation, if taken at an early ſtage of the diſeaſe. The remedy uſed againſt the ſting of ſcorpions, I have yet had but few opportunities of trying, having only adminiſtered it in three caſes, where it proved ſo ſucceſsful, that given in two of them, when the pain was inſupportable, about an hour after their being ſtung, within half an hour after being taken, the pain was conſiderably abated, and in an hour ceaſed altogether. It is well known how painful and burdenſome the Guinea worm is to perſons who are ſubject to it; for, beſides the ſmart pains it ordinarily produces, it obliges them to ſuſtain a great loſs of time, as it attacks chiefly the legs, rendering them incapable of all movement for many months. I have known poor fellows deprived, in this way, of all power to procure for themſelves and their needy family a ſcanty ſubſiſtence, being incapable of any labour for ſix months, and ſometimes more; one worm having no ſooner come out than another made its appearance. It is not rare to ſee perſons from whoſe legs ſix or ſeven of thoſe worms, and ſometimes more, come out in ſucceſſion, after occaſioning great pain, for many months. When this diſorder (which prevails all over this diſtrict, as well as many others in the Carnatic and Madura, to within the diſtance of one or two days journey from the ſea-coaſt) breaks out, it is ſometimes epidemic, ſo that I have often ſeen villages in which more than half the inhabitants were affected by it at the ſame time. Although it appears at every ſeaſon of the year, yet it more generally breaks out in the months of December, January, and February: it is then that it becomes general in many cantons; at other times of the year there are fewer perſons viſited by it. The ſymptoms which announce this diſeaſe are almoſt always the ſame; an uneaſineſs is experienced during ſome days, which is by intervals accompanied by headach, pain in the ſtomach, and nauſea. One or two days before the pain is fixed in the part through which the worm is to make its paſſage, an eruption of ſmall pimples, accompanied with a very unpleaſant itching, takes place over the whole body: this itching becomes more violent in the place where the worm is to paſs, until the pain is fixed in it, when the part ſwells, ſometimes to a great extent, with conſiderable inflammation, which is ſoon followed by ſuppuration. In this caſe, the worm often comes out with the pus, or makes its appearance when the ſuppuration is at an end: ſometimes the place where it is lodged puffs up in the form of a bladder, filled with a limpid matter, and ſometimes only a hardneſs is produced, without any conſiderable inflammation taking place. The period for the worm to come out is not determined within the firſt eight or ten days of the diſeaſe: in many caſes, two or three months elapſe before it makes its appearance, and, during the whole of that time, the limb will continue in a ſtate of ſwelling, inflammation, and ſuppuration. Sometimes it will come out all at once, being gently aſſiſted; and, in this caſe, it is often in a living ſtate. I have many times ſeen theſe inſects extracted from the leg continue to live and move for many minutes; however, for the moſt part, the worm comes out by little and little, about an inch being extracted every day: care muſt then be taken to roll it round a ſtraw, or ſome other ſubſtance, to prevent its returning again. If it be drawn rudely, it is liable to break, as often happens, and, in theſe caſes, the part which remains, will again occaſion ſwelling and inflammation, attended with ſmart pain, which will be again followed by ſuppuration, and the diſorder will prove tedious and obſtinate. However ſevere the diſorder, it is never, or very ſeldom, followed by mortification; nevertheleſs, it is not uncommon to ſee caſes in which ſome of the principal nerves have been ſo much injured by it, as to produce lameneſs, or ſome deformity of the legs.

Theſe worms are of different ſizes; I have ſeen ſome more than a cubit in length, although they are commonly ſhorter; but, in general, their ſize and form may be compared to the treble ſtring of a violin. The places in which they make their appearance are the extremities, chiefly the legs: ſometimes they appear on the arms. I have been aſſured in many places by natives, that they were ſometimes obſerved in the other extremities, ſuch as the noſe, ears, eye lids, &c.; but I have never ſeen them myſelf, excepting in the legs and arms. I feel myſelf no ways qualified to undertake a diſcuſſion on the origin and cauſes of this ſingular diſeaſe. The natives, accuſtomed to attribute moſt of their diſorders to the offenſive quality of bad water, are generally of opinion that this alſo proceeds from that ſource, pretending that theſe worms are generated in it, and ſwallowed in a living ſtate, and that they continue to grow in the human body, until they have found a paſſage to come out. It would be difficult in following this notion, to explain how theſe inſects may paſs through deglutition, digeſtion, &c. in a ſtate of life. On the other hand, admitting that water has no ſhare in their formation, it will not be eaſy to explain how the inhabitants of a village, who drink water from one well, are attacked by the diſeaſe; whilſt the inhabitants at the diſtance only of half a mile, who drink water from another well, are not expoſed to it: or how it happens that thoſe living on the ſhores of the Cavary, and other rivers, who conſtantly drink their limpid waters, are never viſited by it: whilſt thoſe who live at the diſtance of one mile on both ſides, and are obliged to drink the ſaltiſh water of wells, are all, or the moſt part, yearly expoſed to it The climate may perhaps alſo be allowed to contribute to the prevalence of the diſeaſe, as I am informed it is very ſeldom obſerved amongſt people living near the ſea. I never ſaw it in any part of the Myſore, and its very name is not known above the Ghauts; whilſt it prevails generally over the Carnatic, and other diſtricts below the Ghauts, the vicinity of rivers excepted, as I have already obſerved. But whatever may be the cauſe and origin of the diſeaſe, it will be enough for me if the remedy I propoſe proves a ſpecific for its cure; and I will now relate an inſtance which, independently of experience, would prove its efficacy. A long time before I was acquainted with this remedy, converſing with the natives on the diſeaſe, it was many times remarked that Bramins were never or very rarely affected with it, although living in villages where the other inhabitants were conſtantly viſited by it every year; but I never paid any attention to ſuch a remark, conſidering it as one of thoſe idle aſſertions ſo common amongſt the natives, for which no apparent cauſe can be alleged, excepting in this caſe, to attribute that exemption as a privilege excluſively attached to the ſacred character of that order of men. Reflecting, however, on that remark, after being acquainted with the remedy, I was led to ſuppoſe that this exemption of the Bramins from the diſeaſe muſt be attributed to the conſtant and daily uſe which they make of the *aſſafœtida*, or *peroongahyam*, as one of the principal ingredients in their food, which is alſo the principal ingredient in the remedy. That uſed againſt the ſting of ſcorpions may likewiſe be applied with equal ſucceſs, for the ſting of winged inſects, agreeably to the encloſed receipt. The ſhrub whoſe root proves a ſpecific in this caſe, is called by the natives *kaletchy-cheddy*. Not being acquainted with the name given to it by European botaniſts, I encloſe two of its fruit, called *kaletchy-kahye*, that you may by them know the ſhrub which produces them. It is to be found in every hedge, but as there are different kinds, only thoſe which produce white fruit, like thoſe I ſend you, muſt be choſen, the root of the other kinds not poſſeſſing the ſame virtue.

I have the honour to be, &c. &c. &c.

(Signed) Dubois, *Miſſionary*.

Sattimungalum, March 23. 1805.

REMEDY AGAINST THE STING OF SCORPIONS.

Take, at the time of the new moon, the root of the ſhrub called, in Malabar, *kaletchy-cheddy*, of the kind producing white fruit*: Cut it into pieces three or four inches in length, and let them dry in the ſhade. When any perſon has been ſtung by ſcorpions, cut a bit of that root as big as an ordinary bean: let the patient put it into his mouth, and, preſſing it gently between his teeth, let him ſwallow his ſpittle, taking a freſh bit of the root every 12 minutes. At the ſame time, a ſmall quantity of the root being reduced to a fine powder, pour on it three or four drops of water; let it be worked into the conſiſtence of a ſoft paſte, and applied to the wound.

REMEDY AGAINST THE GUINEA WORM.

1. Take of genuine *aſſafœtida*, called by the Tamuls *peroongahyam*, ſeven gold fanams weight. 2. The fruit well known in all the Indian gardens, called by the Tamuls *katri-kahe*,

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* This diſtinction of the miſſionary appears very vague to the Profeſſors Jacquin, as the ſeeds of every guilandina, of which five ſpecies are known, are all white.

kahe, and by the Portugueſe *beringelle* *. 3. Oil of ſeſamum, called by the Tamuls *natta-yennie*, a quantity in which the katrikahe, or beringelle, may be fried. Bruiſe the aſſafœtida, and having divided with a knife the beringelle into three equal parts, leaving them only united by the ſtalk, inſert a third part of the aſſafœtida into each of the parts; afterwards ſew them together with a thread, and fry the beringelle over the fire, in any convenient veſſel, with the oil. Give one part to the patient on his going to bed, another in the morning, and the laſt on the evening of the next day; and rub with the oil, in which the ingredients were fried, that part of the limb where the worm is lodged, three times a-day for three days.

Extract of a Letter, dated Fort St George, March 29. 1805, *from Dr Anderſon to the Rev. Mr Dubois.*

The Kaletchy which you have recommended as a remedy for the ſting of inſects, is of the order *Lomentacea*, and genus *Guilandina* of Linnæus, of which botaniſts have diſtinguiſhed two ſpecies, the bonduc and the bonducella, without any remark on the colour of the ſeeds; but thoſe of a light-brown colour I have ſeen given with advantage by a Bengal lady here, on her paſſage to Europe, to her own child, labouring under an intermitting fever, in preference to Jeſuit's bark. The reaſon you have ſuppoſed for the Bramins not being ſo much ſubject to the Guinea worm as the other inhabitants of the country, leads to a very natural concluſion, on which I ſhall only remark, that having obſerved a ſimilar difference between the liability of our officers and privates, having had ſometimes thirty of the latter, without any of the former, at a time under my care for this diſeaſe, and, unable to find any ſuch difference in the diet to warrant the concluſion which you have made, I was led to think that the privates contracted the diſeaſe by ſleeping upon earthen pyales †, as practiſed at that time, which has ſince been greatly remedied by the introduction of wooden benches into the barracks and guard-rooms of the men. It is well known that the ichneumon fly lodges its eggs in the ſilk-worm, as a proper nidus for their future ſubſiſtence, and we daily find flies in the very kernels of fruits that have been depoſited when ova, without leaving any external mark; nor can we cavil with the idea of an entrance by the chylopoetic organs, when we ſee worms in the eyes of horſes *, and in the livers of ſheep. I have been inclined to think that the Guinea worm was introduced into the human body after the manner of many other inſects, in providing for their offspring, or that, in the ſtate of ova, they might have been taken up from the moiſt earth through the abſorbents of the ſkin. Let this be as it will, it is our buſineſs to get rid of them as eaſily as poſſible; and there cannot be a doubt that an additional remedy is always a conſolation to the afflicted, and the well-known *aſſafœtida* being in the hands of every one, its agency on animal ſenſibility will frequently be had recourſe to, as well for prevention as cure. In my own practice, I have found nothing ſo beneficial as poultices of the Cattale of the Tamuls, (*aloe-littoralis* †) which I likewiſe learned from a native of India The ſaponaceous quality which it ſeems to poſſeſs, by ſoftening the integuments in high degrees of inflammation, checked the tendency to gangrene and mortification in many inſtances, as well as admitted a more free exit to the worm, which I have ſeen in the breaſts of men, as well as in all the lower extremities. When you conſider that inſects ſometimes come as blights over countries where they never appeared before, you will find it difficult to eſtabliſh the local ſituation of ſome ſpecies ſuch as this perhaps, known by the name of the Guinea worm, as our ſhips only frequent the mouths of rivers in Africa, from whence the firſt notice of them has come. Rajamundry, which is on the bank of the Godavery, the largeſt river on the coaſt, is, to my knowledge, very ſubject to them, and it is notorious that they prevail at Trichinopoly, which lies upon the river Cavary: nor are we without evidence of their exiſtence at Bombay, which is altogether a maritime place; and, indeed, your notice of wells of ſaltiſh water, where they are moſt frequent with you, renders it in ſome degree probable that vitriolic and marine ſalts, which are found both in wells and in the ſea, are not unfavourable to their propagation, although I have ſeen them where nothing but the pureſt rock water was made uſe of.

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* According to Dr Griffith, the *Beringelle* of the Portugueſe, called by the Engliſh in India *Brinjaul*, is the fruit of the *Solanum Melongena Linn.* This fruit, which is well known, and often eaten on the continent of Europe, particularly in Italy and in the ſouth of France, under the name *Aubergine*, is of an inſipid taſte. The manner in which it is commonly fried ſeems to conſtitute its ſole merit as a comeſtible; and it is indeed difficult to ſuppoſe that it poſſeſſes any anthelmintic power. It muſt, therefore, be conſidered rather as a vehicle for the aſſafœtida than a neceſſary ingredient in the remedy.

† Pyales are thoſe mounds of earth formed like ordinary benches, upon which the natives of India are accuſtomed to ſleep before their houſes. They are uſually defended from the ſun by a thatch of Palmyra leaves.

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* This diſeaſe, '*a worm in the eye of a horſe*,' is, I believe, unknown in Europe, but is common in India, and is cured by the native farriers by an operation ſimilar to the extraction of the cataract. The inſect is ſeen floating in the humour of the eye; the horſe appears to ſuffer great uneaſineſs, and a conſtant weeping takes place. For further particulars, application might be made to the ſurgeons attached to the regiments of native cavalry on the Madras eſtabliſhment.

† This ſpecies of aloë is quite unknown to the celebrated botaniſts of Vienna, M. M. Jacquin.

VI.

Caſe of Sphacelated Hernia, with Obſervations.

By George Kellie, M. D. Fellow of the Royal College of Surgeons, Edinburgh.

The uſual termination, and indeed the natural criſis, of ſtrangulated hernia, when neglected, is gangrene of the intercepted parts, generally followed by the death of the unfortunate ſufferer. Sometimes, indeed, after the ſeparation of the ſphacelated gut, an uncomfortable exiſtence is preſerved by the formation of what has been called an artificial anus. Uncertain, however, as this event muſt be, the proceſs of nature, in effecting it, is ſo clear and intelligible, as to enable the practitioner to anticipate and aſſiſt her efforts, or, aiming at a higher advantage, to reſtore the continuity of the inteſtinal tube, and the natural courſe of the fæces towards the rectum, by a proper appoſition of the ends of the divided gut. And the ſucceſs which crowned the operation of Ramdhor, and the reſult of experiments made on brutes, encourage the trial of the latter method in thoſe caſes which admit the attempt.

Every book on the ſubject ſpeaks of this accident of an artificial anus. But there is yet a more fortunate, though perhaps a rarer, natural criſis of ſphacelated hernia, where, although the hernial tumour and its contents are affected with gangrene, and the fæces make their appearance through the ſphacelated gut, the continuity of the inteſtinal canal is yet preſerved, and the natural courſe of the bowels reſtored, without the interference of art, and when not a hope had been indulged of ſo happy an occurrence. Many ſuch caſes, however, are to be found in the records of ſurgery. The circumſtances under which this has happened would appear to be theſe.

1ſt, The moſt ſimple caſe is when a portion of the circumference only of the inteſtine has been expoſed to ſtricture, and ſuffered ſphacelation. When the whole diameter of the gut has not been acted on by the ſtricture, and the gangrene is confined to the ſmall part of the circumference intercepted, then, though feculent matter may be for a time diſcharged by the opening, part alſo may paſs on and be diſcharged per anum; and the continuity of the gut having never been altogether deſtroyed, on the cicatrizing of the wound, the natural courſe of the bowels will be reſtored. Several caſes of this deſcription are related by M. Louis, in an excellent memoire "Sur la Cure des Hernies avec Gangrene *."

2. The caput coli may be diſplaced, and, deſcending through the ring, form the herniary tumour. Becoming ſtrangulated, with the uſual ſymptoms, mortification may enſue, the cœcum be thrown off, and the fæces diſcharged by the wound, which may afterwards cloſe without any interruption of the natural paſſages.

3. In like manner, a favourable termination of ſphacelated hernia may be expected, when the part deſtroyed has not been any portion of the regular inteſtine, but a preternatural appendix, cul de ſac, or diverticulum, as ſuch a proceſs of the inteſtine has been variouſly called. Theſe diverticula have been frequently obſerved, either as luſus naturæ, or as the products of diſeaſe †. According to the obſervations of Ruyſh and Morgagni, they occur moſt commonly in the ileum, though they have alſo been found in other portions of the inteſtine. Such a cul de ſac has been the only part protruded and ſtrangulated in ſome caſes of hernia which have terminated fatally ‡.

Whether a ſmall portion only of the diameter of the inteſtine has been intercepted, and pinched as the French ſurgeons deſcribe it, or the caput cœcum, or a preternatural diverticulum,

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* Memoires de l'Academie Royale de Chirurgie.

† Eſſe autem interdum præter naturalem illam (apophyſin cœci inteſtini) alias aliquas appendices quas et diverticula vocant, herniæque ſacculum ſubire, certum eſt, ſive illæ ſenſim præter naturam producantur, ſive a prima origine quibuſdam corporibus ſint datæ.

MORGAGNI, Epiſt. xxxiv. 16.

‡ A full account is given of a caſe of this kind by Morgagni. The following is the deſcription of the diverticulum, as obſerved on diſſection after the death of the patient. "Erat ejus cavitatis qua ſenſim ab inteſtino incipiebat, major axis trium circiter digitorum ſecundum inteſtini longitudinem; minor axis multo brevior, quippe per anteriorem inteſtini faciem digituli intervallo a meſenterii inſertione ad inferiorem faciem ſe extendens. Illis ex initiis paulatim cavitas magis magiſque; ut ſemiovalis requirit figura, ſe contrahebat, donec ad pollicis profunditatem in medio deſcenderet. Hanc igitur ſive cavitatem malis, ſive diverticulum appellare, hernia ſolam intercipiebat, non reliquum inteſtini tubum, ſimulque cum omenti extrema parte concludebat."

Lib. III. Epiſt. xxxiv. 18.

verticulum or cul de ſac has been ſtrangulated and thrown off by ſphacelation, we underſtand how the cure may be ſo fortunately completed by nature, and the fæces, though at firſt diſcharged by the wound, reſume their natural courſe; for the continuity of the inteſtinal canal has not been deſtroyed, and has ſcarcely been interrupted.

4. If, however, the whole circumference of the gut be ſtrangulated, if a complete link of inteſtine be intercepted and deſtroyed by gangrene, we could not, without the interference of art, expect any more favourable termination than the formation of an artificial anus.

Even in ſuch caſes, however, the ſurgeon has been ſurpriſed by a happier criſis. After the loſs of ſeveral inches of gut, including the whole circumference of the ſeparated portion, the artificial anus has cloſed, and, as unexpectedly, the fæces have afterwards continued to paſs by the natural outlet. M. Pipelet, aſſiſted by M. Guerin, had the good fortune to treat a caſe of this kind. The eleventh day from the operation, the ſphacelated inteſtine ſeparated from under the crural arch; it was five inches in length. From that moment the fæces, which had hitherto partly eſcaped from an opening in the gut, and had partly paſſed by the anus, were only paſſed by the wound. The wound gradually contracted, and, at the end of four months, the fæces were ſtill entirely diſcharged by the artificial anus. No more favourable termination was or could be expected. In conſequence, however, of ſome indiſcretion committed by the patient, ſhe was attacked with diſorder of the bowels and fever, for which M. Pipelet preſcribed a laxative, when, to his great aſtoniſhment, the fæces, which had ſo long paſſed entirely by the wound, were diſcharged in the natural way by the anus. In twelve or fifteen days more, the wound was completely cicatrized, the natural function was fully reſtored, and the woman enjoyed good health for ſixteen years after. The proceſs by which nature alone accompliſhed this fortunate cure cannot be better explained than in the words of M. Louis. "Si les deux portions ſaines de l'inteſtin contractent dans leur adoſſement au-deſſus de l'anneau une adherence mutuelle; il eſt clair qu' apres la ſeparation de l'anſe pendante au dehors, ces portions réunies formeront un canal continu, qui ne ſera ouvert que dans la partie anterieure, c'eſt-à dire, dans la partie qui regarde l'anneau; et ſi les bords de cette ouverture ſont adherens de chaque coté à la circonférence de l'anneau, celuici en ſe reſſerrant, en ſera neceſſairement la reunion parfaite." "Ces cas," he adds, "ſe preſentent quelquefois pour le bonheur des malades *."

The

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* Memoires de l' Academie Royale de Chirurgie.

The general rule for the ſurgeon, however, muſt always be to guard againſt ſo formidable an accident as ſphacelation of the protruded gut, by a ſeaſonable diviſion of the ſtricture, when the hernia is otherwiſe irreducible. But thoſe rarer examples of fortunate eſcapes, after mortification of the herniary contents, do not the leſs deſerve to be recorded. They teach us not to withdraw our efforts through deſpair, even in the worſt caſes, and point out to us the reſources of nature as rules for the interference of art.

Elizabeth Craig, æt. 60, a corpulent woman, of a looſe habit of body, ſhowed me, when called to her aſſiſtance on the 12th February 1804, the largeſt crural hernia I had ever ſeen. It meaſured nine inches acroſs, and was nearly as prominent as broad. Its figure was equal and round. It was tilted upwards on the right ſide of the abdomen; and ſo yielding and relaxed was this poor woman's ſkin, that, graſping the tumour with both hands, the fingers could be preſſed beneath it all round, and diſtinctly perceive, like a large cord, the narrow neck of the hernia paſſing under the crural arch. The tumour was hard, and inelaſtic to the feel; handling it occaſioned no pain; the ſkin was no way diſcoloured.

For years paſt ſhe has been ſubject to this deſcent, but the tumour never before attained its preſent ſize, and was eaſily reduced. It had now been down 14 days. For ten days ſhe has paſſed nothing by ſtool. She is ſtill obſtinately conſtipated. She complains of conſtant pain in the epigaſtric region; ſhe calls it a tearing pain, which, increaſing by paroxyſms, brings on ſickneſs, erructations, and occaſional vomiting. Neither food nor drink have been retained by her ſtomach theſe three laſt days. Her tongue is red and parched. Pulſe 100, ſmall, but not very hard. Face fluſhed, and ſkin hot. The hernia is irreducible. She was blooded; ſeveral injections were given; and purgative and occaſional anodynes were preſcribed during this and the following day, but in vain; nothing was retained by the ſtomach, and the injections were ineffectual.

Feb. 14th. I had an opportunity of conſulting with my friend Mr John Thomſon, whoſe humanity and profeſſional curioſity led him to viſit the poor woman at my requeſt.

The great bulk of the herniary tumour we concluded to be omental. The operation was propoſed, but reſiſted by herſelf and friends. She had given herſelf up, and wiſhed to reſign herſelf to her fate.

15th. Her ſtomach received and retained one drachm of aloetic pill, and eight grains of calomel, yeſterday preſcribed to be taken in divided doſes. She has ſince had very ſevere griping pains about the umbilicus, occaſional but ineffectual calls to ſtool; and, on ſuch an attempt this evening, ſhe was ſeized with ſtercoraceous vomiting in my preſence. To have a draught with 50 drops of laudanum.

16th. Slept a few hours. Vomited once only; but has retained a cup of tea, which ſhe took for breakfaſt this morning. The tumour appears leſs bulky, though as firm and irreducible as ever. This evening ſhe paſſed a great deal of wind, and even ſome feculent lumps by ſtool. Pulv. Jalap. comp. ʒſs. 3tia. q. q. hora.

17th. Several liquid ſtools, with ſcybalæ, this morning. The tumour is diminiſhing very ſenſibly in bulk. No vomiting or pain ſince yeſterday. Tongue white, and furred in the middle. Pulſe 60. To have a laxative in the morning, and anodyne at night.

21ſt. Has every day convaleſced. The tumour has been gradually diminiſhing, and what remained was this day quite reduced.

23d. Continues well. Belly and functions natural. She is going about her houſe as uſual.

This woman, however, was again to alarm me by her danger, and ſurpriſe me by her eſcape.

On the 28th April I was requeſted to viſit Mrs Craig, as ſhe was again ill. She had been negligent of her bowels, and, while ſtooping yeſterday at her waſhing-tub, the hernia again protruded. She has had a reſtleſs night. The tumour is not larger than the clenched fiſt. She complains of nauſea and cholic pains. A laxative injection was ordered.

29th. The ſize of the tumour not larger, but it is ſo painful, that it can hardly be allowed to be examined, and the ſkin is diſcoloured. No ſtool. Conſtant vomiting ſince morning. Pulſe 120. Tongue foul. To be blooded; a purgative clyſter to be given and repeated. An anodyne draught at bed-time. Cold ſolution of acetite of lead to be applied to the tumour.

30th. Vomiting continues. No evacuation by ſtool. Complains greatly of the pain of the tumour. The ſkin is red. Mr Charles Anderſon was requeſted to viſit her along with me. She refuſes to ſubmit to the operation, which now appears the only hope. Two grains of calomel to be taken every hour. The anodyne to be repeated at bed-time. The cold applications to be continued.

May 1ſt. A reſtleſs night, with delirium. Vomiting continues. The tumour is more prominent and more diſcoloured, of a dark ſhining red; two ſmall eryſipelatous veſicles on its ſurface. Calomel to be omitted. Fomentations to the tumour, and anodyne at bed-time.

2d. Complains dreadfully of burning pain in the tumour. It feels ſofter; there is a perceptible fluctuation under the ſkin, which is prominent in the centre of the ſwelling, and pointing like an abſceſs. Has not vomited ſince laſt night. Wind paſſed by the anus, but no fæces. Pulſe 120. To take an ounce of caſtor oil.

3d. Diſturbed and reſtleſs night. No ſtool. Stomach rejected the oil, but ſhe has not ſince vomited. Her chief complaint is of the inſufferable pain, heat, and tenſion of the tumour. The ſkin is now very thin, of a gloſſy red, and ſeems ready to give way. She is urgent that ſomething may now be done to relieve her ſufferings, and, with little other view than to immediate eaſe, it was agreed to lay open the tumour. A ſmall opening was accordingly made (Mr Anderſon being preſent), through which there was immediately diſcharged, with great impetuoſity, mixed with a little pus, an abundance of fluid fœcal matter, which more than filled a half-pint baſon. The tumour ſubſided, and the poor woman expreſſed a grateful ſatisfaction, in which we were far from ſympathizing. An emollient poultice was applied. An anodyne draught in the evening.

4th. Has ſlept well, and continues eaſy. Pulſe 100. Tongue foul. She has not vomited. The belly is neither tenſe nor painful. There is a purulent diſcharge, and ſeveral ſmall feculent lumps on the poultice. The tumour has greatly ſubſided. It has a looſe and knotty feel. The ſkin is better coloured. Poultices to be continued.

5th. Yeſterday ſhe went to ſtool, and has again this morning had two natural evacuations per anum. Feculent matter is alſo diſcharged by the wound. A long portion of a ſoft, white ſlough, protruding from the wound, was eaſily withdrawn. It is about three inches long, but its organization ſo deſtroyed as to afford no diſtinct marks of its origin.

6th. A good night. Continues in every reſpect better. Pulſe 90. Frequent looſe ſtools, in the natural way. A very ſmall portion of thin feculent matter on the poultice, with ſmall membranous ſloughs.

7th. The herniary contents have returned within the abdomen; for the tumour has entirely ſunk. Belly open; functions natural. Diſcharge from the wound ſimply purulent.

8th. Purulent diſcharge continues. A long ſlough protruded, and was removed.

11th. Wound looking well. Diſcharge diminiſhing. Belly natural.

14th. Wound contracting daily.

20th. The wound is now cicatrized. She continues free from all complaint; only, when in the erect poſture, the hernial tumour reappears of conſiderable ſize. It is eaſily returned when in bed; and a very careful examination of it, at different times, has convinced me that it is entirely inteſtinal. I have this day, May 20. 1806, examined it once more. It is large, elaſtic, and eaſily returned, with a gurgling noiſe, and again deſcends when the preſſure is removed. She has tried a truſs, but was obliged to lay it aſide, on account, as ſhe ſays, of the cholic pains which it always brings on.

I cannot pretend to offer any particular explanation of this caſe. It is probable that a very ſmall breach only had been made in the inteſtine, through which the fæces had paſſed into the hernial ſac.

Leith, May 20. 1806.

We add the following very intereſting Caſe of Sphacelated Hernia, communicated, at the requeſt of the Editors, by the Phyſician who attended the Patient:

On Wedneſday the the 18th December laſt, I was called in haſte to ſee a man from the country, ſaid to be dying. He was a ſtout, hale-looking man, of between 40 and 50 years of age, not, by his own account, ſubject to any complaint, except habitual coſtiveneſs, and occaſional flatulency in his ſtomach, which he imputed to dram-drinking.

The day before (Tueſday), while on the road from Haddington to town, he had been taken ill with fits of ſevere pain in his bowels, and he had had a good deal of vomiting and retching. Nothing would ſtay on his ſtomach, and ſeveral purgative medicines had been given him, but without effect. When I ſaw him, he alſo complained of a ſevere pain frequently ſeizing him in the left groin, and ſhooting up that ſide of the abdomen. I immediately ſuſpected the cauſe of the patient's diſtreſs, and, on examination, diſcovered a large hernial tumour, extending into the ſcrotum of the left ſide. This, however, he ſeemed to make no account of, as he has had it for about eighteen years, and it had never given him any uneaſineſs, except ſlight pains in the part and in the belly when he caught cold. The pulſe was rather frequent, the tongue a little clammy, but the ſkin was cool.

With ſome difficulty I ſucceeded in reducing the tumour, and its reduction was accompanied by a gurgling noiſe. A proper truſs was afterwards applied, and on Saturday he left town quite recovered.

On the 30th, however, I was informed that he was confined to the houſe from a ſwelling in his right groin, which had become ſo painful, that he could not extend the thigh, and that the ſurgeon in the country had directed the application of a poultice to it. This did not excite in me any great apprehenſion, although, on one occaſion, as I was examining the *left* ſcrotal hernia, I had been ſtruck with the appearance of a ſmall ſwelling in the *right ſide*, which ſeemed hard, knotty, and ſlightly moveable. It originated two years before from a blow on the part, and had never been productive of any uneaſineſs. At the time, I conſidered it as an indolent enlarged gland, and am ſtill perſuaded, although it perhaps did not meet with the attention it deſerved, that at that period no hernia exiſted in the right ſide, as, after the reduction of the left hernia, all the ſymptoms ceaſed. In the afternoon, however, of the following day, I received a meſſage to viſit him immediately, as the ſwelling had mortified, and the greateſt danger was dreaded.

When I ſaw him, his looks did not indicate much diſtreſs; his pulſe was by no means bad; he was in good ſpirits, took his food with appetite, and had enjoyed a good night's reſt. He was perfectly free from pain in the abdomen, and felt but little in the affected groin. He confirmed to the fulleſt extent the account which had been given me of his having been entirely free from retching or vomiting, and of his having daily had natural and eaſy motion of his bowels.

After this account, my ſurpriſe and diſappointment will not ſeem ſtrange, when I ſaw the appearances the affected parts exhibited. The ſkin and cellular ſubſtance of the groin, to the extent of about two inches and a half in length, and one in breadth, had ſloughed off, and the ſurrounding ſkin was inflamed, and rather of a livid hue. The greater part of that portion of the peritoneum which had formed the herniary ſac was quite deſtroyed, leaving only a kind of cobweb fringe attached to the edges of the wound, and expoſing a portion of inteſtine. This, in ſize and ſhape, reſembled the half of a hen's egg divided in the direction of its longeſt axis. It was ſituated higher up than the ſeat of femoral hernia, and more towards the ſpine of the os ileum, than the ſeat of common inguinal hernia, appearing to me to be exactly in the ſituation of the internal ring. This tumor of the inteſtine had a pretty natural appearance, that is to ſay, it was whitiſh, and bore little mark of inflammation; but, upon preſſing it, air-bubbles iſſued from ſeveral points of it. A conſiderable quantity of a thin browniſh fluid, of a very offenſive fœtor, flowed from it, and ſmall quantities of fœculent matter could alſo be preſſed out. After the preſſure, it remained flaccid, and the upper ſide of it at leaſt was in firm adheſion to the contiguous parts of the abdominal parietes. So far as I judged prudent to examine, there was little ſtricture upon the gut, inſomuch that had there not exiſted an adheſion, the inteſtine could, in my opinion, have been replaced into the abdomen.

Notwithſtanding that the pulſe and vires vitæ in general were much improved to what they had been for ſome days before, yet our prognoſis was very unfavourable. We had, indeed, the hope that the patient might eſcape with the inconvenience of an artificial anus, but we were rather diſpoſed to dread the worſt. We did not ſee that any ſurgical operation could be of uſe, as nature had fulfilled the only rational indication in view, viz. ſecuring the gut to the internal wound, ſo that the diſeaſed gut might not ſlip into the abdomen, and a paſſage be ſecured through the external wound for the fœces. If the caſe ſhould terminate in this way, we alſo hoped that in time the patient might obtain a complete cure, particularly as we concluded that the whole caliber of the inteſtine was not affected, ſince he all along had enjoyed natural and eaſy paſſage of his bowels. A carrot poultice, with ſome yeaſt, was applied to the part, and a liberal exhibition of bark and wine was ordered.

I returned to town, and received the following account of the ſtate of our patient, on the 7th January, from the ſurgeon attending him.

"Dear Sir,—I have delayed giving you an account of the intereſting caſe at Linton, until I viſited the patient yeſterday.

"I am happy to ſay I found him in better ſpirits, with a better countenance and better pulſe than the day on which you viſited him. The gut in the ſame ſtate as you obſerved it, the ſphacelation going on, and more evident marks of decay.

"The external wound or ſore has now fine granulations, a good diſcharge and healthy appearance, and the offenſive ſmell is corrected.

"But what appears moſt ſingular in the caſe is the regular, eaſy, and natural ſtools which daily take place.

"The pulſe is firmer, at 68, and his appetite good.

He is going on in the ſame plan, bark, wine, an opiate in the evening, and the antiſeptic poultices."

Upon the receipt of this letter, conſidering that the gut was much decayed, that the fæces did not force their way through the wound, but had a free and eaſy diſcharge per anum, it occurred to me, that this diſeaſed gut muſt be the anterior part of the cœcum, or caput coli. For although, from the contiguity of the ileum to the groin, and from the length of the meſentery allowing it to move very freely within the abdomen on the one hand, and from the cloſe, ſtrong, and ligamentous attachment of the cœcum and right ſide of the colon to the kidney, on the other, one ſhould naturally ſuppoſe the ileum to be moſt frequently the ſubject of hernia; yet experience does not confirm this. Mr Pott, on this ſubject, has the following paſſage in his Treatiſe on Ruptures: "That the deſcent, or more properly protruſion, of a part of the cœcum and colon is rare, is not true, for it happens very frequently. Perhaps it would not bear to be eſtabliſhed as a general rule; but from what has fallen within my obſervation, in frequently performing the operation for a ſtrangulated rupture, it has appeared to me, that the greater number of thoſe in whom it has been neceſſary (all attempts to reduce the parts by the hand having proved fruitleſs) has conſiſted of the cœcum, with its appendicula, and a portion of the colon."

In the courſe of a few days I received the following very ſatisfactory confirmation of my opinion.

"*13th January*, 1806.

"Dear Sir—Agreeably to my promiſe and your deſire, I ſit down with much pleaſure to give you an account of our patient, who, I am happy to ſay, has moſt completely deceived the doctors, and every one who viſited him.

"On the 7th of January the ſphacelated portion, which formed the hernia, ſeparated and came off with the poultice, and it was fortunately preſerved in water.

"Upon examination, on the 8th, it appeared to conſiſt entirely of the blind ſac of the colon or cœcum, which ſatisfactorily explains the regular, eaſy, and natural ſtools which of late had daily taken place. The external ſore was clean; healthy granulations appeared, and there was a rich diſcharge of pus, free from fœculent matter and ſmell. Having a deſire to empty his bowels on this day, whilſt I was with him, upon inſpection, I found it eaſy, and in every reſpect natural. The pulſe 34, and feeble; appetite and ſpirits better.

"From every conſideration of what has taken place in this caſe, I entertain a hope that adheſion of the remaining part was going on even at the time you viſited him, and is now completed internally.

"Dreſſed with charpee compreſs and gentle preſſure by bandages. Continued the bark, wine, and opiate, with nouriſhing diet.

"From the 8th to this day, the external ſore has been healing rapidly, and, to a wiſh, his appetite and ſpirits improving, with a gradual return of ſtrength; though, I muſt confeſs, this does not evidently appear in the pulſe, which I found this day ſtill low and feeble, about 60; which induces me to go on with the bark and wine, and nouriſhing diet, for ſome time longer.

"I would have informed you of the reſult ere this, but was inclined to delay; for, candidly ſpeaking, I muſt confeſs I did not expect ſo favourable a termination.

"I remain," &c.

The foregoing caſe is uncommon, and, ſo far as my ſurgical knowledge extends, is, in many reſpects, new. It has terminated, beyond expectation, moſt fortunately for the patient, although profeſſional curioſity would have been ſatisfied with the internal inſpection of the parts. If the ſurgeon be right in his conjecture, which, in my opinion, he is, that there is a complete adheſion of the remaining part of the cœcum internally, it will reſemble one of thoſe rare varieties of hernia, where the oppoſite ſides of the inteſtine, juſt above the protruded portion, adhere, while the part has no communication with the inteſtinal canal, and forms a cul de ſac. The preſent caſe would form one of the moſt favourable of theſe varieties, ſince the cœcum having formed the cul de ſac, no narrowneſs or tightneſs will remain at the affected part of the alimentary canal.

Mr Pott relates a very wonderful caſe of hernia, where about three inches of protruded ileum became completely ſphacelated. The part caſt off, and the patient diſcharged the fæces for ſome time through the wound; but, in about the ſpace of a month, that entirely ceaſed, the wound healed, the fæces were diſcharged naturally and regularly per anum, and the patient continued afterwards well. I may be allowed to make the ſame remark in my caſe that Mr Pott has made in his, viz. That, had the uſual ſurgical operation been here performed, or, to ſpeak plainly, had the ſphacelated portion of gut been prematurely removed, and the inteſtine ſtitched to the external wound, although the patient might have eſcaped with life, yet, in all probability, he might have been ſubject to the inconveniency of an artificial anus.

I have only to add, that the patient is now perfectly recovered, feels no inconvenience whatever, and is following his uſual occupation of life, which is rather a laborious one.

Edinburgh, 9th May, 1806.

VIII.

Caſe of Tumour in the Tongue, cured by Calomel and Cicuta.

By one of the Surgeons of the Sunderland Diſpenſary.

EMMA HAZARD, a married woman, in the 55th year of her age, applied for relief to the Sunderland Diſpenſary, in conſequence of a hard tumour, ſeemingly of a ſchirrous diſpoſition, occupying the middle and fore part of the tongue, but extending farther back on its under than upper ſurface. She had been troubled with it for more than three years, during the latter part of which period it became ſo uneaſy and painful, as to induce her to apply for medical aſſiſtance on September 9. 1805. The tumour, from its bulk, and being ſituated in the middle of the tongue, equally between its upper and under ſurface, not admitting of exciſion, ſhe was deſired by a reſpectable ſurgeon, under whoſe care ſhe had been placed as a patient of the Diſpenſary, to employ the cicuta, which ſhe continued to take in the form of a pill, to the extent of a drachm daily, till the 23d of November, but without effect. A conſultation of the ſurgeons of the Diſpenſary, of whom I am one, being at this time called, and it appearing manifeſt that, ſo far from getting better under the above-mentioned treatment, ſhe daily became worſe, it was agreed, at my ſuggeſtion, to combine with the cicuta half a grain of calomel daily, which was afterwards increaſed to a whole grain. Being made to obſerve this plan for ſome time, ſhe appeared to derive manifeſt advantage from it, excepting that, on the 16th of December, her bowels became affected; which inconvenience, however, was ſpeedily remedied, by having recourſe to opium. This plan being obſerved, on the 23d of the ſame month the tumour became much leſs painful and indurated, and ſome ſmall ulcers which ſurrounded it were obſerved to heal up. It being ſtill perſiſted in, ſhe continued to mend daily. On the 30th of January her tongue was almoſt well, and, on February the 3d, ſhe was diſmiſſed completely cured.

I ſhall refrain from making a ſingle remark upon the caſe I have detailed, contenting myſelf with conſidering it as an uſeful addition to our preſent ſtock of medical facts, from which future advantage may be derived to the practice; and, as ſuch, I feel deſirous of its being announced to the public through the medium of the Edinburgh Medical and Surgical Journal.

It may be neceſſary to obſerve, that the woman has remained in perfect good health ever ſince the time of her diſmiſſal from the Diſpenſary.

Sunderland, March 7. 1806.

IX.

Caſe of Tic Douloureuſe. By George Kitson, Member of the Royal College of Surgeons, London.

Thomas Andrews, aged 28, was attacked with pain over the orbit of the left eye in the morning of Feb. 8. 1806, which continued till about three in the afternoon, when it ceaſed, and did not return till the next morning; it ceaſed again in the evening, and returned moſt violently on the 10th, when I was deſired to ſee him. I found him affected with univerſal ſpaſm; his pulſe weak, tremulous, and irregular; his eyebrows drawn down, and the eyelids conſtantly cloſed. The ſpaſms would relax for a ſhort time, and return with violence. He was perfectly ſenſible, and complained of great pain over the orbit of the left eye, immediately in the ſituation of the frontal nerve. He ſaid he could cover the part with the point of his finger, but that the pain extended into the orbit, and over the forehead. The part was not ſwelled, nor was the ſkin inflamed. The pain was increaſed on preſſure, which would inſtantly bring on the ſpaſms. It was with difficulty he could be prevailed on to open his eyes. I gave him ſome wine, and other ſtimuli, with little advantage. The pains and ſpaſms increaſed, and the man ſtill perſiſting that it proceeded ſolely from the ſpot over the orbit, and that he was free from pain in every other part, I determined to divide the frontal nerve, and made an inciſion about half an inch in length directly above the eyebrow down to the bone; the ſupraorbitary artery was divided, but not more than two ounces of blood were loſt. The operation gave him great pain, and brought on a violent attack of ſpaſm. In a few minutes he ſaid he was free from pain, and the ſpaſms ceaſed. I brought the divided ſkin together by ſticking-plaſter, and directed a mixture compoſed, of comp. ſp. of vitriolic æther, lavender, and camphorated mixture, to be given occaſionally in the evening. I found he had had ſome ſleep, that he was quite free from pain, and conſidered himſelf well. Pulſe 102, irregular.

Feb. 11*th.* He has had no return of the pain or ſpaſms; ſlept well, and was down ſtairs this morning. He ſays he is as well as before this attack. Pulſe quick, ſmall, and irregular. Ordered to take two table-ſpoonfuls of the cordial mixture three or four times a-day.

Feb. 12*th.* He is in his uſual ſtate of health. Pulſe irregular. Ordered to diſcontinue medicine, and live chiefly on animal food.

March 13*th.* The wound united by the firſt intention. That part of the ſkin of the forehead, to which the divided nerve is diſtributed, is ſtill deprived of ſenſation. He has had no return of the pain; but ſhould it return with the ſenſation of the part (as has been the caſe in ſome inſtances), I will inform you of it. The irregularity of the pulſe proceeds, I have reaſon to believe, from a diſeaſe of the heart, with which he has been affected ſome time.

Bath, 13*th March,* 1806.

X.

Account of Dr Gall's Diſcoveries regarding the Structure of the Brain. By T. C. ROSENMULLER, Profeſſor of Anatomy at Leipſic.

FROM careful obſervations and examinations of the brain and ſkull, in men and animals of every claſs, continued for a long ſeries of years, Dr Gall of Vienna has been convinced that peculiar nerves are appropriated to each of the functions of the mind, as they are to the different ſenſes. When, in any individual, there is a greater diſpoſition to or perfection in any mental faculty than in the others, the nervous apparatus belonging to it is diſtinguiſhed by a greater prominency on the convolutions which are obſerved on the ſurface of the brain; and this prominency of the brain, or nervous maſs, produces on the correſponding part of the ſkull a gentle riſing, or eminence, which is to be ſeen or felt on the outſide.

Many authors have occupied themſelves in deſcribing minutely the ſituations in which, according to Dr Gall's numerous obſervations and experience, the organs for ſeveral functions of the mind are expreſſed by eminences on the ſkull. But I am diſpoſed to conſider, as of infinitely greater importance, Dr Gall's examination of the brain, which I ſhall endeavour to communicate as conciſely as poſſible, abſtracted from all the reſults deduced from it. On account of its importance, I ſhall alſo confine myſelf to that part of his inquiries which relates to the human brain; for although, in reality, he was led by a compariſon of the brain of animals to his opinions concerning the human brain, it would be too tedious to enumerate, on this occaſion, theſe compariſons, and they will be very circumſtantially detailed by Dr Gall himſelf in a complete treatiſe which he is preparing on the ſubject.

According to Gall's inveſtigation, the whole of the medullary ſubſtance of the cerebrum and cerebellum conſiſts of nervous fibres, and the whole of the cortical ſubſtance of ganglions, by means of which the nervous fibres are nouriſhed, ſtrengthened, and more intimately connected.

The nerves which conſtitute the eſſential part of the cerebrum and cerebellum, as well as of the ſpinal marrow, are, like the blood-veſſels, of two kinds; the excurrent or diverging, and the recurrent or converging, which all ariſe from the ſpinal marrow, or terminate in it.

The excurrent nerves paſs through various ganglions; but a ganglion, according to Gall, conſiſts in an enlargement, in which the nervous filaments ſeparate from each other, and each filament is ſurrounded with a ſofter, gelatinous, dirty reddiſh maſs, of a glandular nature, which ſerves, perhaps, for the nouriſhment of the nerve, and contains its accompanying blood-veſſels. On paſſing out of ſuch a ganglion, the convolution of nervous filaments is always larger than on entering it. The darker and ſofter ſubſtance, which conſtitutes the eſſential part of a ganglion, ſpreads itſelf not only over the whole ſurface of the cerebrum and cerebellum, but is alſo found in the corpora ſtriata, the thalami nervorum opticorum, the tuber cinereum, between the nervous filaments of the ſpinal marrow, in the pons varolii, corpora olivaria, and in all the ganglions unconnected with the brain.

The recurrent nerves, from both hemiſpheres of the cerebrum and cerebellum, meet at certain places, and form mutual connexions or commiſſures. Thus, the corpus calloſum is the commiſſure of the cerebrum, and the pons of the cerebellum.

The ſpinal marrow conſiſts, like the brain itſelf, of two ſymmetrical halves, and each half is formed of from eight to twelve diſtinct bundles of nerves, but contiguous and parallel.

Each of the eight pairs of nervous bundles, which Gall has hitherto aſcertained in the ſpinal marrow, contains the materials of a determined nervous apparatus. Beneath the corpora pyramidalia, the bundles, which were originally parallel, croſs each other, ſo that the nerves of the left half go to the right ſide, and thoſe of the right half to the left. This decuſſation may be diſtinctly obſerved, if we gently ſeparate the halves of the ſpinal marrow with the handle of the ſcalpel, after having removed the pia mater.

The bundles of both ſides now aſcend thickened, forming the corpora pyramidalia and corpora reſtiformia (the crura pedunculi, or proceſſus cerebelli ad medullam oblongatam), from the former of which the cerebrum, and from the latter the cerebellum, receives its nerves.

From the corpora pyramidalia, the nervous bundles paſs into the pedunculi cerebri, by penetrating through the pons varolii. When the pia mater is removed, we immediately perceive diſtinctly the tranſverſe fibres of the commiſſure, which conceal the excurrent nerves of the cerebrum; but the courſe of the latter is alſo diſtinctly ſeen, when an inciſion is made into the pons varolii, in the direction of the pedunculi cerebri, towards the corpora pyramidalia, and, by ſeparating the edges of the cut, the tranſverſe nerves of the commiſſure are ſcraped off, with the handle of the knife, from the longitudinal nerves of the pedunculi cerebri, which are interwoven with the former like the threads of linen.

The pedunculi cerebri, or the continuation of the corpora pyramidalia, now proceed in an excentric direction of the nervous filaments through a ganglion, viz. through the corpora ſtriata and thalami nervorum opticorum as they are called, but which, in reality, have no connexion with the optic nerves.

If a portion of the poſterior lobe of the brain be cut off horizontally from the foſſa ſylvii backwards, there appears a central lobe of the brain, bounded by a deep groove, which Gall denominates the *inſula*. This inſula conceals the corpus ſtriatum. By gradually ſcraping off the ſubſtance of this ganglion with the handle of the knife, from within and behind, forwards and outwards, the nervous filaments of the pedunculi cerebri, which proceed through it in their excentric direction, ſoon become viſible. After they leave this ganglion, they again acquire a greater extenſion, as they continue their courſe toward the cortical ſubſtance of the brain, where they terminate. But this ſuperficial ganglion, in addition to the nerves immediately terminating in it, conſiſts of a large, flat, membranous expanſion, which could not be contained within the ſkull, if it were not folded up like a napkin. In the morbid ſtate of the brain, when water is accumulated in the ventricles, this folded membrane, along with the bones of the ſkull, gradually becomes ſo expanded, that the folds or convolutions entirely diſappear*, and the nervous fibres, which previouſly were folded up, are now extended. But they can alſo be extended, when the circumference of the brain is unfolded into its membranous form, by introducing the finger moiſtened with water into a lateral ventricle, and gently ſtroking towards the convolutions, until they diſappear.

From this ſuperficial ganglion the recurrent nerves commence, either by originating in the cortical ſubſtance, or by the excurrent nerves taking an oppoſite direction at this place. The recurrent nerves are diſtinguiſhed from the excurrent by their greater ſoftneſs, as well as by their oppoſite courſe; for they proceed from both ſides towards the corpus calloſum, and become there blended with each other in their commiſſure, ſo that they lie in contiguous tranſverſe bundles, which always grow thicker towards the middle, as more nervous fibres are added. At laſt they return to the pedunculi cerebri and ſpinal marrow, from which the nerves of the brain took their riſe.

To the cerebellum nervous filaments proceed through the corpora reſtiformia from the ſpinal marrow, running upwards and outwards, as they form a part of the pedunculi cerebelli, and then paſs through a particular ganglion, the corpus ciliare, or rhomboideum. From this ganglion they again proceed thickened, and terminate in the ſuperficial ganglion, (the cortical ſubſtance). From this the recurrent nerves now alſo take their riſe, and, as a broad trunk, paſs by the corpus ciliare, unite from the oppoſite ſides in their commiſſure, the pons varolii, and return, as a part of the pedunculi cerebelli, to the ſpinal marrow.

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* We lately examined a caſe of hydrocephalus internus, in which this obſervation was remarkably exemplified. The brain reſembled a bladder filled with water, and although its parietes were thin, this was owing to expanſion, not to abſorption, for it did not weigh leſs than a healthy brain would do.—*Editors.*

In regard to the nerves proceeding from the brain to the organs of ſenſe, there is alſo ſome peculiarity of arrangement.

The olfactory nerve ariſes from its bundle in the ſpinal marrow, aſcends towards the teſtis as its ganglion, ſpreads from this as a broad fibrous band outwards upon the pedunculi cerebri; winds around the under and outward part of the corpus ſtriatum in the ſame manner as the optic nerve, and can, like it, be peeled off the corpus ſtriatum. The trunk again expands beneath the anterior lobe of the brain into a ganglion, from which the ſingle fibres are diſtributed upon the Schneiderian membrane.

The ſecond pair ariſes from the ſpinal marrow, aſcends towards the nates as its ganglion, and, on quitting them, winds around the pedunculi cerebri, from behind and without, forwards and inwards, near and behind what are called the thalami nervorum opticorum, but without intermixing with them, ſo that where it firſt touches the pedunculi cerebri, it receives fibres from them, but, afterwards partly decuſſating, unites from the oppoſite ſides, and is, in ſome degree, connected with the olfactory nerves by means of the fundus ventriculi tertii, or tuber cinereum.

The third pair is alſo to be found as a bundle in the ſpinal marrow, is thickened in the corpus olivare as its ganglion, penetrates through the black maſs of the pons varolii, in which ſome fibres ſeparate, and, on leaving it, again unite to form that bundle called the third pair.

The white nervous filaments lying in the fourth ventricle have no connexion with the portio mollis of the ſeventh pair. They proceed from the inner layer of the ſpinal marrow into the fourth ventricle, and ſupply with nerves the neareſt convolutions of the cerebellum. In many animals which hear acutely, they are entirely wanting.

THE

THE INQUIRER, Nº VI.

On Herpes.

THE diſeaſes of the ſkin, though numerous and important, have been much overlooked. We have only to conſult the writings of phyſicians to be convinced how neceſſary it has become to determine with preciſion the genera of cutaneous diſeaſes *. The term *herpes* has, in particular, been greatly abuſed; it has, indeed, been ſo variouſly applied by different authors, both ancient and modern, that it has now become not a little difficult to ſeize the true character of thoſe affections which ſhould be claſſed together under that title.

Herpes ſeems to have been originally employed by the Greek phyſicians to expreſs any ſuperficial ſpreading eruption. It is not uſed by Celſus to denote any particular diſeaſe; but, under the genera papulæ and ignis ſacer, he deſcribes thoſe cutaneous diſorders which later phyſicians have comprehended under the term herpes.

Galen admitted three ſpecies of theſe diſeaſe, ἑρπης κεγχριας, ἐσθιομενος, and φλυκταινωδης; a diviſion which has deſcended to us by the names of herpes *miliaris*, *erodens*, and *phagædenicus*; the firſt from its form and appearance, the ſecond from its malignity and rapid courſe, and the third from its deep ulceration.

There are three orders, however, of cutaneous diſeaſes, which it is highly neceſſary to diſtinguiſh; the papulous eruptions which, without any diſcharge, terminate in ſcurf; thoſe eruptions which, though not prone to ſuppuration, diſcharge a ſerous fluid, and terminate in ſcurf or ſcales; and the puſtulous eruptions, which ſuppurate, and terminate in cruſts or ſcabs, covering ulcerated ſurfaces. The genera lichen, herpes, and impetigo, are examples of theſe different appearances. Lorry, however, one of the beſt modern writers on the diſeaſes of the ſkin, confounds both lichen and impetigo with herpes. And the herpes farinoſus of Sauvage ſhould, in the opinion of Willan, be referred to the genus lichen. The term herpes ſhould therefore be confined to thoſe cluſters of minute puſtules which do not end in ſuppuration, but diſcharge a ſerous lymph †, and terminate in ſcurf, ſometimes in cruſts. It will thus be ſeparated from the ſimple papulous eruptions on the one hand *, and from puſtular ulcerating affections on the other †.

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* There is reaſon to hope that this will ſoon be accompliſhed by the labours of Dr Willan.

† "It neither matters nor comes to digeſtion, but, being rubbed, will ſometimes gleet a thin ſharp water."—*Turner*.

"Non raro exudant humorem tenuem et acrem, ſed non ſuppurantur nec reſolvuntur."—*Sauvage*.

DEFINITION.

It is difficult to fix the character of this diſeaſe in the terms of a definition. That given by Dr Cullen is too general, and might be applied with equal propriety to other diſeaſes of the ſkin.

“Phlyctenæ vel ulcuſcula plurima, gregalia, ſerpentia, dyſepulenta.” The words phlyctenæ ‡ and ulcuſcula convey but an imperfect idea of the herpetic puſtules.

The definition of Sagar applies more ſtrictly to the ſtrophuli and lichenes than to herpes. “Papularum prurientium corymbus in ſquamas furfuraceas fatiſcentium.”

Thoſe of Linnæus and of Vogel are rather more accurate. The former defines *herpes* “Puſtulæ eſcharoticæ baſi communi eryſipelacea;” and the latter, “Papula ardens cutem ſerpentibus minimis puſtulis erodens.” The definition given by Sauvage, which we ſhall adopt for the preſent, differs little from that of Vogel. “Herpes eſt papularum congeries, ſeu effloreſcentia ex tumoribus exiguis, rubris, aggregatis, pruriginoſis, in ſquamas furfuraceas, raro cruſtaceas abeuntibus ‖.”

The accuracy of this definition, however, depends much on the idea underſtood by the term papula, which is explained by Sauvage as differing from the puſtule, “Ex eo quod non ſuppurantur (papulæ), ſed quid humidi apice rejiciunt, dein abeunt in ſquamas furfuraceas §.”

HISTORY.

Herpes commonly makes its firſt appearance by an eruption of a number of red elevated papulæ, diſpoſed ſo as to form a ſmall circular areola, a little raiſed above the ſurface, rough to the touch, and ſurrounded with ſome degree of erythema. The areola ſpreads more or leſs rapidly in every direction, by the eruption of new papulæ, and the extenſion of the erythematic circle. The parts are affected with a troubleſome itching, burning heat, and tingling pain. If the papulæ are ſcratched or rubbed, they diſcharge a ſerous fluid, which oozes out from their ruptured apices. This, however, far from relieving, ſeems rather to increaſe the itching, which often becomes intolerable. While the firſt formed eruptions diſcharge themſelves, dry up, and fall off in ſcurf, a new crop ſucceeds; on leaving the originally affected parts, the diſeaſe ſpreads over the neighbouring ſurface. Thus, by the evaneſcence of one ſet of puſtules, the ſucceſſion of others, and the ſpreading erythema, the diſeaſe continues often for a long time. But, in ſlighter caſes, the papulæ gradually ſhrink, or, after diſcharging a little ſerous lymph, dry up, leaving the ſkin diſcoloured and rough, covered with a furfuraceous ſcurf, and ſometimes with cruſts.

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* Willan deſcribes as genera of papulæ, the ſtrophulus, lichen, and prurigo.

† Scabies, impetigo, ſerpigo, &c.

‡ “Veſſels with a dark red and livid-coloured baſe are uſually denominated Phlyctenæ.”—*Willan.*

‖ Noſolog. Methodic. Sauvageſii.

§ This is ſomewhat different from the papula of Willan, “a very ſmall and acuminated elevation of the cuticle, with an inflamed baſe, not containing a fluid, not tending to ſuppuration.”—*Willan on Cutaneous Diseaſes.*
We ſhall continue to uſe the term papula in the ſenſe of Sauvage.

Different parts of the body are frequently at the ſame time affected. The heat and itching which accompany theſe eruptions are commonly aggravated towards evening, and often prevent the patient ſleeping at night; the irritation is alſo increaſed by external heat, and after taking food, or ſwallowing warm and ſtimulating drinks.

The functions are commonly natural, and the general health ſeldom ſuffers, unleſs in more violent caſes, where the irritation may give occaſion to ſome degree of ſymptomatic fever.

Every part of the ſkin is occaſionally ſubject to herpes, but the thighs, arms, back, and face, are more frequently affected.

It is generally in ſpring or ſummer that herpetic eruptions make their firſt appearance, and it is not uncommon for the diſeaſe to diſappear altogether during the colder months, and to return again with the ſpring.

The ſyſtem is ſaid to have been relieved from many chronic ailments by the eruption of herpes, and dangerous ſymptoms are proclaimed to have ariſen from its ſudden repulſion.

CAUSES.

Prediſpoſition.—There would ſeem to be, in ſome individuals, a particular prediſpoſition to this cutaneous affection. Some families are more liable to it than others, and women more than men.

There are two periods of life, Profeſſor Lorry obſerves, more eſpecially ſubject to herpes; that which immediately ſucceeds the complete growth of the body, and, again, about the firſt decline of the ſyſtem. "Certè ſunt duæ vitæ periodi in quibus maximè emicant herpetes. Prima eſt periodus illa, in quâ corpus

incrementi apicem pervenit, jamque ſuperflua exundant. Altera eſt ubi menſtrua ceſſante in fœminis vacuatione, organis verò ſimul perſpiratoriis in utroque ſexu minus liberis, appelens ad cutem reſiſtat lympha *."

Occaſional Cauſes.—Among theſe we may number, 1. External irritation. Thus, Sauvage informs us that the prieſts of his time were often affected with what he terms *herpes collaris*, "propter acrem tincturam quâ lineum ipſorum collare inficitur †." There is another example better known, the *herpes periſcelis*, la jarretière of the French, "qui poplitem, ubi zona vinciri ſolet, infeſtat †."

2. In ſome individuals, particular ſubſtances received into the ſtomach, as ſome kinds of fiſh, muſcles, bitter almonds, &c. give occaſion to cutaneous eruptions ‡; but it is doubtful if herpes is ever produced in this way. Errors in diet, however, and more eſpecially habitual exceſſes in eating and drinking, may be admitted as cauſes of this diſeaſe ‖.

3. Herpes is not unfrequently the immediate conſequence of the body being overheated by violent exerciſe. This cauſe is indeed allowed by almoſt every writer. I have at this time a patient under my care with very extenſive herpetic eruptions on the arms and thighs, in whom the diſeaſe firſt appeared a few hours after returning home much heated and fatigued with more than uſual exerciſe.

A ſimilar caſe is mentioned by Turner: "A ſervant-maid, of a fine ſkin and clear complexion, being red haired, was, after walking in the heat of the day from her maſter's country-houſe to London, ſeized with a burning heat and tingling in her thigh, in which diſcovering a cluſter of pimples in the ſkin, ſhe acquainted her miſtreſs with her fears of the ſmall-pox, which, ſhe ſaid, were very thick in one of her thighs §."

4. Herpetic eruptions ſometimes occur in caſes of ſyphilis, and hence ſyſtematic writers have mentioned a herpes ſyphiliticus, or venereus ¶. The propriety of admitting this ſpecies is, however, queſtionable. There is greater reaſon, perhaps, to attribute ſome caſes of herpes to the mercurial irritation; at leaſt eruptions of this diſeaſe are not uncommon after courſes of mercury.

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* Lorry de Morbis Cutaneis, p. 313.

† Sauvag. Noſolog. Methodic.

‡ See Van Swieten Commentar. in Aphoriſmos. Dr Gregory's Lectures, &c. &c.

‖ An example may be found in Turner. See alſo Lorry de Morbis Cutaneis.

§ Treatiſe of Diſeaſes incident to the Skin.—*Turner.*

¶ Sauvage Aſtrua.

5. It is aſſerted by many authors that herpes may be propagated by infection, or caſual inoculation, from contiguous intercourſe with an affected perſon [*]. But the ſame has been ſaid of almoſt every cutaneous eruption. For my own part, though I have often ſeen this diſeaſe, I have never known it communicated from one perſon to another. Negative experiments are certainly not very deciſive; but I have attempted to inoculate myſelf with the ſerous fluid which oozed from the herpetic papulæ of the patient already mentioned. I introduced the matter in the uſual way, under the cuticle of my arm, but without effect.

Laſtly, Various other circumſtances affecting the general health of the ſyſtem, ſuch as, ſuppreſſion of the catamenia, grief, and other debilitating paſſions, have been aſſigned as cauſes of this cutaneous diſeaſe [†]. On theſe, however, I have no remarks to offer.

DIAGNOSIS.

There is no danger of confounding herpes with any of the exanthemata or impetigenes of Dr Cullen; and the papulous eruptions and itching readily diſtinguiſh it from erythema.

Herpes, however, has more reſemblance to the lichenes, and other papulous diſeaſes of the ſkin. But the papulæ of herpes are larger, more diſtinct, and more elevated than thoſe of lichen; they have more the appearance of puſtules; the former contain a fluid, the latter are dry. The eruptions of herpes are more confined, crowded together into diſtinct and commonly regularly circumſcribed forms, the lichens are more diffuſed and irregular; herpes frequently terminates in cruſts, the lichenes in ſcurf; lichen is commonly preceded by ſome diſorder of the ſyſtem [†], herpes very ſeldom.

PROGNOSIS.

Herpes is not a diſeaſe of any danger, but one of very uncertain duration, ſometimes paſſing away in a few days, ſometimes continuing with great obſtinacy for a long while.

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[*] "In contagio conſiſtit, quod negare pariter medicis expertis impoſſibile eſt. Vidi in uno decubitur contractos herpetes, nec facile ſanabiles, idque non una vice."—*Lorry de Morb. Cut.* p. 312.

"Per contagium adhuc herpes communicatur, uti oſculando, ſi herpes in facie ſit, vel concubando."—*Tractat. duo Patholog. Medico Monſpel.* tom. ii. p. 273.

[†] Willan on Cutaneous Diſeaſes.

Solitary eruptions are more evaneſcent; when different parts of the body are at the ſame time affected, the cure is always more difficult. An extending erythema, with interſperſed papulæ, generally marks an obſtinate diſeaſe.

CURE.

Cutaneous diſorders, in general, ſeem to have afforded ample ſcope to the ſpeculations of the humoral pathologiſts. In theſe complaints, they were at no loſs to demonſtrate the already concocted humours which had vitiated the circulating maſs, and which, by an effort of nature, were thus ſeparated, expelled, and depoſited on the ſurface of the body. Lorry, for example, the very learned author of an excellent work, *de Morbis Cutaneis*, gravely enumerates no leſs than ten different kinds of acrimony generated within the body, and giving riſe to diſeaſes of the ſkin, acrimonies of the bile, of the lymph, of the ſerum, of the mucus, of the milk, and of the fat; a ſcrofulous, venereal, variolous, and morbillous acrimony *. To one or other of theſe fancied acrimonies, it was uſual to refer the different diſorders of the ſkin.

According to Galen, and ſeveral of the Greek phyſicians, vitiated bile was the cauſe of herpes; while Avicenna, it ſeems, blamed, with Hippocrates, an inraſſated pituita. Lorry himſelf finds ſeemingly much difficulty in determining to which of the humours herpes ſhould be referred. He frequently ſpeaks of an herpetic virus wandering over the body, and producing various chronic diſeaſes, till at length it arrives at the ſkin, and relieves the ſyſtem from all its ills. He appears, however, upon the whole, to conſider the lymph as the peccant humour. "In herpetibus etiam non ſerum, non bilis per ſe, quanquam aliter ſenſerunt antiqui preceptores noſtri, luem accipiunt, ſed mucor ille qui proprié lympham conſtituit †."

The practice which has prevailed in the treatment of herpes was the natural offspring of ſuch notions of the diſeaſe.

The cure was always begun by blood-letting and purging; then the patient was bathed, and put on a courſe of diluent ſoups and ptiſans, blooded and purged again, while a variety of alterants were preſcribed with the view of diluting, correcting, and expelling the morbific humour. At length, with the greateſt caution, they ventured on topical applications, which were often inſignificant; for they were fearful leſt, by repelling the humour into the blood, it might fix on ſome important organ, and produce a more dangerous diſeaſe.

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* De Morbis Cutaneis, Introduct. p. 51-63.

† Tractat. de Morbis Cutaneis, p. 304.

Thoſe, however, whoſe fears were not alarmed by viſionary ſpeculations, employed, at all times, external applications with a happy freedom; for their practice was ſucceſsful, nor did they experience thoſe complicated evils which the theory of the humoral pathologiſts led them to expect, and which their practice ſometimes perhaps gave riſe to.

Celſus truſted much to external remedies; he ordered the parts affected to be fomented with wine, and recommended ſeveral healing applications [*]. Ambroſe Parée, after ſome general evacuations, at times, no doubt, neceſſary, preſcribed aſtringent ointments, with the powder of oak-galls and alum [†]. And Turner, who, not much addicted to theory, generally details the reſult of his own ſucceſsful practice in the ſimple language of truth, recommends topical applications of a ſimilar naure, ſolutions of alum, and of white vitriol, and aſtringent ointments, containing often the ſubmuriate of mercury [‡]. The vulgar, too, no way ſuſpicious of danger, and experiencing none, often put a ſtop to the progreſs of herpes by the ſimple application of ink.

Let us then baniſh thoſe lurking fears to which a fanciful pathology has given birth, and at once attempt the cure of a very troubleſome and often diſtreſſing diſeaſe.

After all, we ſhall ſoon find how little it is in our power to repel or to cure theſe eruptions. In the beginning, indeed, this may be frequently accompliſhed; but when the diſeaſe has extended, when larger portions of the ſkin have aſſumed a morbid action, ſo ſoon as we think we have repelled one ſet of eruptions, another ſucceeds, or the diſeaſe will radiate, as it were, from the original focus in every direction. When the erythema is extending, we ſhall be convinced that there is no danger of this repulſion, that no application merits the name of repellent; for if the powerful aſtringents are now employed, ſo far from repreſſing, they will rather ſeem to accelerate the progreſs of the diſorder [§].

Our applications, therefore, muſt be varied, and ſuited to the different appearances of the diſeaſe; and internal remedies will ſometimes be neceſſary, not to correct the acrimony of vitiated fluids, but to depreſs or raiſe the general action of the ſyſtem, and to extinguiſh the morbid action of the ſkin itſelf.

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[*] De Re Medica.

[†] Lib. vii. cap. 14. Lib. xix. cap. 29.

[‡] A Treatiſe of Diſeaſes incident to the Skin.

[§] "Vulgo retropreſſus talis herpes, incendio vicinas partes ad ipſum ulceris limbum ferocius adoritur, malumque fit et latius et ſævius."—*Lorry.*

In caſes of ſolitary and circumſcribed eruptions, not attended with much heat and inflammation, aſtringent applications are uſeful, and often alone effect a cure, and, on the firſt appearance of the papulous areola, ſometimes arreſt the further progreſs of the diſeaſe. But when the diſeaſe is more completely formed, when it is ſtill extending, when the heat, tingling, and inflammation, are at their height, ſuch applications are to be avoided as uſeleſs, and often hurtful. In this ſtate, the parts are to be kept cool by the continual application of weak ſolutions of acetite of lead, and covered in the night-time with the unguentum acetitis plumbi. When the ſymptoms have been thus moderated, the more powerful aſtringents may be again employed; ſuch as, ſolutions of the ſulphate of zinc, the unguentum oxidi zinci, and unguentum gallarum.

When the papulæ are broken, and the inflammation abated, a thin ſerous fluid often oozes out from innumerable ſmall pores; in this ſtage, the beſt applications are weak ſolutions of the muriate of mercury, the unguentum nitratis hydrargyri, and unguentum oxidi hydrargyri cinerei, or one made with lard, and the ſubmuriate.

In the active ſtate of herpes, a moderate diet, cool regimen, and gentle laxatives, are properly indicated.

Where, however, the diſeaſe has continued for ſome time, and reſiſted the applications commonly uſed, when the patient is ſubject to repeated eruptions, it becomes neceſſary to employ other general remedies, which may change the morbid diſpoſition of the ſkin.

A change of diet, regular exerciſe, and bathing, are often ſufficient. The decoctum guaiaci, antimonials, and ſmall doſes of the muriates of mercury, are commonly preſcribed, and ſometimes are very effectual in obſtinate caſes.

The natural ſulphureous and chalybeate waters have alſo been much reſorted to for the cure of herpes.

K.

PART

PART III.

CRITICAL ANALYSIS.

I.

Ricèrche ſulla Quina. Di Giovanni Fabbroni.

This eſſay, for a copy of which we are indebted to its celebrated author, ſeems to have been printed in ſome periodical work, as it wants the characteriſtic mark of a ſeparate publication, a title-page. Whether our conjecture be right or not, is of little conſequence; but it was neceſſary to account for the imperfect manner in which it is announced.

Cinchona was in uſe among the Peruvians, when their country was diſcovered by Europeans: that of the fineſt quality grows upon the mountains of Huayaquil and Cajama, in the neighbourhood of Loxa, and on the mountains of Caxanuma, Uritaſinga, and other lofty mountains in the preſidency of Quito, at a barometrical height of 23 inches, and never on the plains. The reputation and conſumption of its bark in Europe became ſo great, that even in 1738, when Condamine was there, there were no old trees in Caxanuma, and even young ones in the neighbourhood of Loxa were ſcarce; ſo that, to ſupply the increaſing demand, various other barks were ſubſtituted for the true cinchona, the variety of whoſe effects tended to bring it into diſcredit. From motives of humanity, and of ſupporting a trade ſo uſeful to their colonies, the Spaniſh Government in 1777 ſent out a committee of learned men to make inquiries concerning it on the ſpot. They diſcovered that there were various ſpecies of the genus cinchona. Ruiza and Pavon deſcribed 15 which they found in Peru, which, added to thoſe of Vahl and Tafalla, make 25. But this valuable genus is not confined to the ſouthern hemiſphere, for ſeven ſpecies, ſome of them officinal, have been found by Mutis in the neighbourhood of Santa Fé, where that celebrated botaniſt has reſided ſince 1783, as director of the exportation of cinchona.

The ſpecies of cinchona deſcribed in the Quinologia of Ruiz, in the order of their virtues, are,

1. C. nitida, *Ruiz;* only a variety of the C. lancifolia, according to *Zea,* ſuppoſed to be the C. officinalis of Condamine.
2. C. tenuis, *Quinol.* C. hirſuta of the *Flora.*
3. C. glabra. C. lanceolata of the *Flora.*
4. C. anguſtifolia, *Ruiz;* C. lancifolia, *Mutis.* This furniſhes the yellow bark of the ſhops.
5. C. magnifolia, *Ruiz* and *Pavon;* oblongifolia, *Mutis.* This furniſhes the red bark of the ſhops.
6. C. glandulifera, *Flor. Peruv.*
7. C. purpurea, *Flor. Peruv.;* C. ovata, *Ruiz;* C. officinalis, *Linnæi.* This furniſhes the pale bark of the ſhops.
8. C. luteſcens, *Quinol.;* C. magniflora; C. oblongifolia, *Mutis* and *Ruiz.*
9. C. palleſcens, *Quinol.;* C. ovata, *Flor.*
10. C. fuſca, *Quinol.;* C. roſea, *Flor.*
11. C. colorata (Peruviana.)
12. C. caliſaja, *Flor. Peruv.*
13. C. eleifolia.
14. C. micrantha, *Taſalla.*
15. C. dichotoma, *Flor. Per.* Zea excludes this ſpecies entirely from the genus cinchona.
16. C. acutifolia, *Flor. Per.*
17. C. lanceolata, *Flor. Per.*
18. C. grandiflora, *Flor. Per.*
19. C. pauciflora, *Taſalla.*
20. C. macrocarpa, *Vahl;* C. ovalifolia, *Mutis.* The white bark of the ſhops.

Ruiz admits only two of the ſeven ſpecies deſcribed by Vahl, and rejects his floribunda, anguſtifolia, longiflora, and ſpinoſa. He alſo rejects the caribbea of Jacquin and Wright, the corymbifera of Foſter, and the philippica of Cavanilles, but does not agree with Zea in conſidering Nos. 2. 7. 9. and 14. as mere varieties of the cordifolia, and Nos. 1. 3. 4. 10. 12. and 17. of the lancifolia. It therefore appears, that although the knowledge of this valuable genus has been much extended by the Spaniſh botaniſts, much ſtill remains to be aſcertained; but Tafalla and Manzanilla are now exploring the woods near Loxa, and Mutis ſtill reſides at Santa Fé.

Although Ruiz will not allow the cinchona of Santa Fé to be equal in value to thoſe which grow in the much more elevated regions of Loxa, eſpecially the nitida, ovata, and magnifolia, ſtill the greater facility of exportation renders the diſcovery of valuable cinchona in North America highly important. Of the ſeven ſpecies found in Santa Fê, four only are ſaid to be officinal, which may be named from the relative colour of their barks, the red, the orange, or yellow of the ſhops, the pale of the ſhops, and the white.

The orange or yellow of the ſhops was firſt diſcovered. Its effects are truly ſpecific, a doſe of two drachms, given before the fit, cutting ſhort intermittent fever, as if by a charm; but unfortunately it is extremely rare, at leaſt at Santa Fé, not one tree being found for one thouſand of the other ſpecies. It is the bark of the C. lancifolia of Mutis, which is called by the natives quina naranjada, and is probably the ſame tree with the C. anguſtifolia of Ruiz. Zea ſays, that it is the ſame with that called, in commerce, calliſaya, and known in Spain by the name of huanueo. Ruiz aſſerts that it is a diſtinct ſpecies from the nitida, fuſca, and officinalis of Vahl and Condamine. It is thus deſcribed: Surface ſcabrous, with tranſverſe chinks, more or leſs abundant; epidermis tawny, with black, cineritious, or white ſpots; internally more or leſs honey-coloured; from half a line to two lines in thickneſs; moderately heavy; difficult to break, although not ſolid, but ſpongy; fracture exhibits many ſharp, delicate, unequal, longitudinal fibrils; gummy reſinous matter diſcernible, with a lens, although not very abundant; aromatic odour ſenſible, when boiled; taſte bitter, pungent, unpleaſant, ſlightly acid, not aſtringent; ſcarcely tinging the ſaliva, however long chewed.

The pale bark, the quina amarilla of the Spaniards, is next in febrifuge virtues, but partakes ſomewhat of the properties of the red, being alſo purgative. It is the bark of the C. cordifolia of Mutis, of the C. officinalis Lin., and which, probably, is the ſame with the ovata of Ruiz and Pavon. Its external ſurface is ſmooth; its colour, internally, cinnamon; its thickneſs, upwards, of a line; light; fracture, with ſome fibres drawn out; ſmell ſlight, but ſenſible and agreeable during decoction; taſte bitter, ſlightly acid, auſtere, reſembling that of a dried roſe.

The red bark of Santa Fé was at firſt received with enthuſiaſm on account of its ſenſible qualities being ſtronger; but its uſe was followed with diſguſtful nauſea, ſevere vomiting, inſupportable colic, and other effects highly injurious to patients of a ſanguine, bilious temperament, and of a rigid fibre; ſo that it would have been entirely laid aſide, had not Ruſhworth diſcovered its ſpecific virtue againſt gangrene. It is produced by the magnifolia of Ruiz and Pavon, and the oblongifolia of Mutis, the quina roxa of the Spaniards, and is one of the moſt common ſpecies at Santa Fé. The exact deſcription of this ſpecies is accidentally omitted, but the following particulars regarding it are mentioned. Its internal ſurface has a reddiſh cinnamon colour; it contains little gummy reſinous matter; it has the bitter taſte common to all the ſpecies, but in a weaker degree, and is auſtere, cauſing an evident conſtriction of the lips, tongue, and fauces.

The white bark of Santa Fé was found by Mutis to be an uſeful drug, and its efficacy on the glandular ſyſtem was confirmed by Clarke. It is the bark of the cinchona ovalifolia of Mutis, the macrocarpa of Vahl, and is not found in Peru. It has a whitiſh cinnamon colour, has little gummy reſinous matter, and its taſte is rough, with an almoſt imperceptible acidity. Fabbroni perfectly imitated the colour of the powder of the three firſt ſpecies by the following mixtures, with the view of affording ſome ſtandard of compariſon.

	Red.		*Orange.*		*Pale.*	
Lamp black	0	8	0	6	0	4
Gamboge	29	2	23	1	23	2
Dragon's blood	70	0	46	0	26	7
Licopodium	0	0	30	3	49	8

Our knowledge of the active and ſoluble principles of cinchona has been ſummed up by our author in the following abſtract.

1. The different ſpecies of cinchona require different quantities of water to extract all their ſoluble principles; 360 parts the red, 240 the orange, and 480 the white.

2. The moſt powerful febrifuge cinchona is not that which contains either the largeſt or ſmalleſt quantity of principles ſoluble in cold water.

3. Cinchona infuſed for ſome hours in a ſufficient quantity of cold water yields to it all its active conſtituents; 30 pounds of cinchona, exhauſted in this manner, ſcarcely furniſhed one ounce of inſipid earthy extract, by long ebullition in water.

4. Cinchona loſes its ſolubility, and conſequently its activity, by long expoſure to the air, and by pulverization conſiderably protracted, with the view of rendering it as fine as poſſible. From $\frac{12}{100}$ to $\frac{16}{100}$ are obtained from bruiſed cinchona, which, in fine powder, yields only $\frac{6}{100}$ or $\frac{7}{100}$.

5. The ſolubility of the extract is diminiſhed during its formation. About one half of dry extract is not ſoluble again in water.

6. The bitter of cinchona is ſoluble in warm as well as in cold water.

7. Cinchona boiled ſucceſſively in ſeven portions of water gave a bitter taſte to an eighth.

8. The infuſion, when allowed to ſtand long, after having been boiled, or even ſlightly ſcalded, acquires a deeper colour, and depoſits a matter apparently reſinous, but only partially ſoluble in alcohol. The remainder has a very deep colour, and is alſo ſoluble in water.

9. The infuſion is more aromatic, the decoction bitterer.

10. The infuſion on boiling loſes its aſtringent taſte with a little volatile oil, but retains its bitter.

11. The ſulphate of iron is precipitated of a blackiſh green by the infuſion of cinchona, and ſtill more ſtrongly by the decoction.

12. Lime water produces a more copious precipitate in the recent decoction than in the recent infuſion.

13. The alkalies cauſe a precipitate, which, when added in exceſs, they rediſſolve.

14. Cinchona infuſed in wine prevents it from turning ſour, and, in a few days, throws down the colouring matter as charcoal and nutgalls do.

15. Infuſions of cinchona ferment ſpontaneouſly in ſummer.

16. Cinchona deſtroys the emetic property of the ſupertartrite of antimony, without loſing any of its febrifuge virtues.

17. The alcoholic tincture of cinchona is bitter, and precipitates iron from its ſolutions.

18. Cinchona, after having been ſubjected to 22 ſucceſſive infuſions in water, yields to alcohol a bitter matter, without aſtringency.

19. Water extracts more aſtringent than bitter matter from cinchona previouſly acted upon by alcohol.

20. Sulphuric acid deſtroys the bitterneſs, but not the aſtringency, of the infuſion and decoction of cinchona.

21. Alcohol extracts more from cinchona than water does.

22. By diſtilling, with a gentle fire, cinchona with water, aroma, with ſome traces of volatile oil, are obtained.

23. Two drachms of genuine febrifuge cinchona, adminiſtered in ſubſtance, completely prevent the acceſs of intermittent fever. (Mutis and Zea.)

24. The decoction of two ounces is inadequate to produce that effect.

25. The cold infuſion is more powerful than the decoction.

26. The cold infuſion and ſhort decoction of good cinchona have the ſame denſity, and contain the ſame quantity of extractive matter.

27. The extract of cinchona is leſs efficacious than the powder.

28. The reſiduum of a firſt infuſion of cinchona, although it has loſt ſomewhat of its bitterneſs, &c. produces the ſame febrifuge virtues with freſh cinchona, provided it be given in larger doſes.

From theſe facts the following uſeful concluſions are drawn:

1. That cinchona is partially decompoſed even by ſimple pulverization.

2. That it is decompoſed by boiling.

3. That, therefore, a cold infuſion is preferable, or rather its adminiſtration in ſubſtance.

4. That the ſoluble principles of cinchona being ſomewhat of a reſinous nature, it is adviſable to add alcohol to the cold infuſion, as ſome pharmacopœias preſcribe, or to infuſe it in wine, as was done by the celebrated Pringle, and the empiric Talbot.

5. That cinchona contains the aſtringent principle, and hence the nutgall was tried as a ſubſtitute for it, but without ſucceſs.

6. That the febrifuge virtue does not belong eſſentially and individually to the aſtringent, the bitter, or any other ſoluble principle, as the quantity of theſe increaſe by long boiling, while the virtues of the docoction decreaſe.

7. Neither does the febrifuge virtue reſide in that principle which deſtroys the emetic property of antimony, or precipitates iron, ſince the decoction contains more of it than the infuſion, while its virtues are evidently leſs.

8. That cinchona, by boiling, loſes its aroma, a ſmall quantity of volatile oil, and a ſubſtance which, by new combination, becomes inert; it is therefore probable that it is owing to this ſeparation that the extract is leſs efficacious than the decoction, and this than the infuſion.

We ſhall paſs over our author's account of the analyſis of cinchona by Fourcroy and others, and proceed to notice his original experiments. In conſequence of a chemical theory of the mode in which cinchona acts on the living ſyſtem, our author aſcertained the relative affinity of different cinchonas, and ſome other ſubſtances to oxygen, by putting in ſimilar veſſels a drachm of each in powder, with an ounce of nitric acid, of 35° of Baume, and accurately meaſuring the greateſt degree of heat produced, and the time neceſſary for its production. The temperature of the air was 18° R., and it roſe in each mixture reſpectively to the annexed degree in the number of minutes prefixed.

3. Genuine pale cin. of Loxa,	34.	10. Licoperdon,	27.
4. Orange cin. laſt powder,	34.	7. Laucoceraſus leaves,	26.
6. White cinchona,	32.	5. Anguſtura,	25.
4. Orange cinchona,	31.	7. Quaſſia,	25.
6. Orange cin. firſt powder,	31.	8. Gall-nuts,	24.
7. Red cinchona,	31.	4. Oak-bark,	23.
12. Spurious cinchona,	29.	1. Colomba,	20.

The remainder of this eſſay has little reference to the practice of medicine, but is almoſt purely chemical; and although the author modeſtly apologizes for its imperfections, it contains ſeveral curious views and important facts. The conſtituents hitherto detected in cinchona are, according to Fabbroni,

1*ſt*, *Mucilage*, probably inſipid, ſoluble in water, decompoſible by fermentation.

2*d*, *Ferment*, ſoluble in alcohol, ſeparable by water, and decompoſible by fermentation.

3*d*, *Extractive*, ſubacid, aſtringent, ſoluble in alcohol, and in water.

4*th*, *Reſinoid*, ſtrongly attracting oxygen, inſoluble in alcohol, and in water, when in a certain degree of oxygenation.

5*th*, *Lime* and *magneſia*, in the ſtates of malate and carbonate.

6*th*, *Vegetable acid*, probably malic.

7*th*, *Volatile oil*, rendered ſoluble, probably by the extractive.

8*th*, *Fixed oil*, which, united to the picra, reſinoid, extractive, and oxygen, is rendered ſoluble in various menſtrua.

9*th*, *Aroma*, of a peculiar nature, very fugitive.

10*th*, *Woody fibre*, finally decompoſible into oxallic acid.

11*th*, *Acid not vegetable*, in various ſtates of combination.

We do not know whether Fabbroni has accidentally omitted from this enumeration, or has included under extractive, the bitter principle which he denominates *Picra*, which is characterized by being ſoluble in water and in alcohol, and tinging animal ſubſtances of an indelible yellow colour. The preſence of tannin was alſo indicated by the copious precipitations with ſolutions of gelatine and muriate of tin; but our author does not ſeem inclined to admit tannin as a peculiar principle, but rather to conſider it as his bitter principle, or picra, united with extractive, ferment, oil, &c.; in proof of which, he adduces Chenevix's experiments on coffee, which, in its raw ſtate, according to our author, yielded picra, but, when roaſted, exhibited the properties of tannin, in conſequence of the combination of picra with the oil developed by roaſting. Our author's experiments on cinchona, ſubjected to fermentation, and to the action of nitric acid, are new and intereſting. He found that, by the latter, the mucilage is converted into oxallic acid, and the ferment, aroma, and volatile oil, deſtroyed or decompoſed, while the picra and ſuppoſed tannin remain unaltered. But, notwithſtanding the great attention which has been paid to the analyſis of this important drug, much ſtill remains to be done. We have repeated the experiments related by Dr Duncan jun. in Nicolſon's Journal, vol. vi. p. 225, and are perfectly ſatisfied of the peculiarity of the principle called by him cinchonin; for gelatin, albumen, and ſtarch, the only other ſubſtances which, ſo far as we know, are precipitated by an infuſion of galls, are inſoluble in alcohol, as well as their precipitates; whereas both cinchonin, and the precipitate it forms with an infuſion of galls, are very ſoluble in alcohol. But we are inclined to conſider theſe precipitates leſs ſimple than they are commonly ſuppoſed to be; for a decoction of cinchona is precipitated both by gelatine and galls, and, when ſaturated by either of theſe reagents, it is ſtill acted upon by the other. Now, if gelatine deprived the infuſion of galls of no other principle than tannin, it would follow, that an infuſion of cinchona contained both tannin and another principle precipitable by tannin, which can ſcarcely be the caſe; and, indeed, we do not at preſent ſee any other way of accounting for the facts, but by ſuppoſing that the infuſion of galls and cinchona contain, each of them, tannin, and another principle of a different nature, in each, not precipitable by tannin, but by each other; and as an infuſion of galls, after being ſaturated with gelatine, does not act on an infuſion of cinchona, it would ſeem that the gelatine throws down from an infuſion of galls not only the tannin, but the other principle precipitable by cinchonin.

II.

Medical Collections on the Effects of Cold, as a Remedy in certain Diſeaſes. With an Appendix, containing an Account of ſome Experiments made with a View to aſcertain the Effects of Cold Water upon the Pulſe. By JOHN EDMONDS STOCK, M. D. &c. 8vo. pp. 200. Longman & Co. 1805.

THE mental habits of man are as incorrigible as his corporeal habits. When the tenor of opinion has been long and uniformly directed in one channel, and the views of a ſubject have been long of a ſimilar complexion, the mind does not readily accede to a different and almoſt oppoſite mode of thinking, whatever the evidence in favour of the latter may be. A collection of facts, numerous and well authenticated, may be ſet before us; by a proceſs of the moſt legitimate induction, a ſeries of incontrovertible inferences may be obtained; additional evidences may be accumulated from the moſt reſpectable authorities; yet we ſhrink from the dereliction of habitual tenets; and it is by gradual ſteps, and not without reluctance, that we ſuffer the derangement of our accuſtomed trains of thought.

Nay, after a certain degree of conviction ſhall have been impoſed upon the mind, we have ſtill ſeen, in the very inſtance to which we more particularly allude, a conſiderable heſitation in proceeding to apply it in practice. On the ſubject of cold, as a remedy in febrile diſeaſes, the habits and prejudices of the public ſtill reſiſt the evidence of experience and philoſophy; and while practitioners, under the ſame influence, recommend its application with an air of diffidence and doubt, as a new remedy,—an experiment, it is not likely that its reception will ſoon be general. Although Dr Stock, therefore, pretends to no originality of evidence, his work will, we doubt not, be of conſiderable utility, by repeating the call of attention to the ſubject; and thus, by contributing to new habits of thought, "it may at once tend to ſooth the apprehenſions of the patient," and to give confidence to the medical practitioner.

The author commences his work with ſome obſervations on the general effects of cold upon the human ſyſtem, followed by ſome remarks on the hiſtory of its medical application, and its more particular effects, and then proceeds, with Dr Cullen's noſology as a text-book, to point out thoſe diſeaſes in which the expedient is or is not advantageous, according to a well-ſelected ſtore of evidence from the moſt reſpectable ſources.

It is chiefly in regard to the firſt point that we feel any difficulty in aſſenting to the doctrines maintained by Dr Stock. At the ſame time, it muſt be obſerved, that any trivial difference of opinion upon theſe ſpeculative topics does not tend, in any degree, to invalidate the particular practical inferences which have been deduced from multiplied obſervation and experiment.

Some confuſion and apparent inconſiſtency are obſervable in the opinions of medical writers, in reſpect to the general effects of cold on the living body. It has been claſſed among ſtimulants, and ſedatives, and tonics; and it has been recommended by Dr Cullen himſelf, as the means of moderating the violence of reaction in one claſs of diſeaſes, and of obviating debility, by ſupporting and increaſing the action of the vaſcular ſyſtem, in another. Now, we agree with the author, generally, that both theſe effects may be explained by the ſedative powers of cold; the former being the direct effect of the abſtraction of the ſtimulus of heat, the latter the indirect effect of the ſame abſtraction more tranſiently operating, according to the general fact ſtated by Brown and Darwin, of accumulating excitability under ſuch circumſtances. The five arguments in favour of this opinion, recounted and illuſtrated by the author, are ſufficiently ſatisfactory.

"They are derived, 1*ſt*, From the paleneſs and contraction

tion of the ſkin, which ſucceed the application of cold; 2*dly*, From its diminiſhing or weakening the action of the heart, and arteries; 3*dly*, From the debility and inactivity obſervable in the inhabitants of cold countries; 4*thly*, From the gradual diminution of the vital powers, which commences with its firſt application, and which, if its operation be long continued, terminates in their entire extinction, either in particular parts, or in the whole body; and, *laſtly*, From the accumulated excitability which it induces to the ſtimulus of heat."—P. 3.

The author thence attempts to controvert a poſition of the late excellent and lamented Dr Currie, that the principal operation of cold is, in certain inſtances, ſtimulant which he affirms that Dr Currie admits, in conſequence of being "unconvinced by the ingenious theory of the author of *Zoonomia*." It ſurely did not require five arguments to prove that the abſtracting of a ſtimulus muſt be a ſedative operation; and Dr Currie allows it to be incontrovertible, that "cold, in extreme degrees, is a powerful and *effectual* ſedative."—See his Reports, 2d edit. p. 72. But he juſtly contends, that the application of cold operates upon two of the ſenſorial powers, upon *ſenſation* as well as upon irritation. The application of cold is not a ſimple abſtraction of heat, the ſtimulus of the irritable fibre; it is alſo a ſhock to the ſenſible fibre; and the powerful *ſenſation*, which is thus excited, is a ſtimulus of no inconſiderable influence. It is not eaſy to conceive that Dr Stock ſhould remain unconvinced by theſe obſervations of Dr Currie, and that he ſhould ſtill aſk, "Would not the ſprinkling of a few drops of tepid water," from its *mechanical* impetus, "rouſe a perſon in ſyncope, as rapidly as the ſame quantity drawn from the coldeſt ſpring?" We would recommend an experiment to the author, upon the reſult of which we will reſt our ultimate opinion. Let a mug of water be poured into his bed on two ſucceſſive mornings during his repoſe, the one tepid, the other ice-cold; and we doubt not that he will be rouſed from his dreams with a rapidity by no means proportionate to the quantity of the fluid, and inverſely proportionate to the quantity of heat which it may contain.

Other *ſenſations* are reſorted to by the practitioner, in the inſtance of ſyncope, as inlets to the ſenſorial power, through the medium of which its activity may be reanimated. A fetid or pungent *odour* applied to the organ of *ſmelling* produces the ſame effect on the torpid ſyſtem, as the ſudden impreſſion of cold. The two expedients have nothing in common but the vivid ſenſation which they excite; to the ſenſation, therefore, the ſtimulation muſt be attributed. This is ſo perfectly conſonant with Dr Darwin's doctrine, that it is difficult to explain why he overlooked the operation on the ſenſation, and conſidered the application of cold as a ſimple abſtraction of the ſtimulus of heat. The phenomena of the living body are ſomewhat more complicated than the chemical mixtures of the laboratory, and the mutual operation of its powers bids defiance to the attempts at ſimplification which ſome modern theoriſts have purſued.

The author conſiders it as unneceſſary to ſay much with regard to the uſe of cold in typhus, a ſubject which has been ſo fully and philoſophically illuſtrated by Dr Currie. But he gives ample teſtimony of the efficacy of cold applications in a fever improperly claſſed by Sauvages and Cullen among the varieties of typhus, namely, the yellow fever. He obſerves, that however various and contradictory the opinions of the different writers on that ſubject were, they all agreed in recommending the uſe of cold water and cool air; and he adduces ſome obſervations from Dr Ruſh, and other phyſicians, in proof of the ſalutary effect of the application of cold, even during the exhibition of mercury. He believes, however, that the long-continued application of it is preferable to the ſimple affuſion, eſpecially in thoſe caſes in which the heat of the ſkin is exceſſive, conſtituting the true *cauſus*, and in which the reaction might be ſo great as to endanger the patient.

Of the utility of cold applications in the various inflammations of the viſcera, which are deſigned by names terminating in *itis*, the author has been able to collect but little teſtimony. In phrenitis, cold applications to the ſcalp are probably of ſome advantage. In one caſe of enteritis, where the abdomen was exceedingly hot, and exquiſitely painful to the touch, Dr Stock ordered it to be bathed with wet napkins wrung out of cool water, with evident advantage and relief to the patient. Hyſteritis is the only remaining viſceral inflammation in which he has any evidence of the efficacy of cold.

We are ſatisfied, from our perſonal obſervation of the uſe of cold water in febrile complaints, that the cold affuſion or ablution is not attended with any unpleaſant conſequences, where great determinations to the different viſcera occur; and that the fears which exiſt as to the probable miſchiefs which may reſult from the practice, under thoſe circumſtances, are but remains of the old prejudices of our predeceſſors. The extent of the *advantages* of the practice remains, however, to be proved by future experience. The author has adduced ſatisfactory teſtimony, that, even in the different forms of pneumonia and catarrh, it does *no harm*.

In reſpect to gout, the author is diſpoſed to believe in the ſafety and efficacy of the local application of cold, as recommended

mended by Dr Kinglake and others; and he has collected ſome additional facts in favour of it. We are ſatisfied that, in numerous inſtances, the practice is efficacious beyond all other expedients; and we have reſorted to it frequently, with decided utility, in thoſe local attacks of inflammatory rheumatiſm which are often denominated rheumatic gout. Neverthelefs, we cannot doubt of the occaſional *retroceſſion* of the diſeaſe, in conſequence of the local ſuppreſſion; and ſome ſatisfactory criterion, which would enable us to anticipate, with conſiderable certainty, the reſult of cold applications, is yet a deſideratum.

Dr Stock next examines the *exanthemata* and the hæmorrhagies, in all of which the uſe of cold is ſhown to be advantageous. In regard to ſcarlatina, in which the external application of cold water has been proved to be an effectual remedy, in the moſt decided and unequivocal manner, by Dr Gregory and Dr Currie, Dr Stock ſuggeſts, upon principles well underſtood, that the continued application of the remedy by ſponging and waſhing would be ſtill more efficacious than the affuſion, after which the heat of the ſkin ſo ſpeedily returns.

In the *comata* the external application of cold is frequently uſeful. In ſanguineous apoplexy, it has been recommended to the head, and, in *apoplexia hydrocephalica*, Dr Ruſh applied vinegar, in which ice had been diſſolved, to the head, with evident advantage. A curious caſe, illuſtrative of the efficacy of cold immerſion, in removing the apoplexy of drunkenneſs, is related from Dr Currie, and a long quotation is introduced from a diſſertation by Dr Johnſon, in proof of its utility in the *apoplexia venenata*, or *aſphyxia* produced by the fumes of charcoal.

In reſpect to the *ſpaſmi*, the efficacy of cold affuſion in the cure of *tetanus* has been amply illuſtrated during the laſt few years; we have ourſelves witneſſed its beneficial effects. In *chorea*, epilepſy, and ſome other ſpaſmodic diſeaſes, it has not been found to poſſeſs much power. In colic, *cholera*, and *hyſteria*, the author has collected proofs of the utility of cold applied in different modes.

The efficacy of cold, uſed in various ways to the head or body of maniacs, has been illuſtrated by many examples, and its employment is recommended, under certain circumſtances, by moſt writers on the ſubject. Among the *cachexiæ*, which are connected in general with a condition of debility and languor, little can be expected from the ſedative powers of cold. *Tympanites* is the only diſeaſe of this order in which its application can be uſeful. In *iſchuria*, the beneficial effect of cold applied to the lower extremities has been frequently recorded. Dr Stock quotes three pointed caſes of ſuppreſſion of urine, of conſiderable duration, in which, after the failure of diuretics, opiates, glyſters, emollients, &c. cold water applied to the legs and abdomen ſpeedily removed the diſeaſe.

On the ſubject of burns, the author does not pretend to decide as to the comparative merits of the cold treatment, or of the uſe of turpentine, recommended by Dr Kentiſh; but he adduces ſeveral pointed teſtimonies in favour of the former, one of which we ſhall tranſcribe.

" Many years ago (the reporter received the facts from the perſons concerned), two brothers, apprentices to a hatter, were employed in taking hats from a boiler, and rinſing them out in a very large tub of cold water. Some diſpute ariſing, one of them lifted the other in his arms, and ſeated him directly in the boiler; but being inſtantly ſtruck with terror at what he had done, without loſing his hold, he again lifted him from the boiler, and ſeated him in the tub of cold water. The youth, who had been thus hurried through theſe extremes of temperature, had on a pair of wide linen trowſers, and received no other injury than a narrow bliſter, which was formed directly under the waiſt-band, and encircled his body."—P. 167.

The work is terminated with a general ſummary of the facts, and an attempt to deduce, from this review, ſome general principle, upon which the whole of the operations of cold may be explained. The author is of opinion, that it is, in all inſtances, either directly, or through ſome ſympathetic connexions, a ſedative operation, conſequent on the abſtraction of the ſtimulus of heat. In general, no doubt, this is the caſe. But we have already offered ſome reaſons for concluding, that, through the medium of *ſenſation*, its action is ſometimes directly ſtimulant, (we confine the uſe of theſe much-abuſed terms to the *obvious* depreſſion or excitement of the living powers;) and we apprehend that, in other inſtances, the operation is not purely a ſedative abſtraction of heat. Cold waſhing will not arreſt a typhus in its commencement. This, it appears, can only be effected by the *ſhock* of affuſion; *i. e.* by a ſtrong impreſſion on the ſenſorial powers. Other expedients, which have ſcarcely any property in common but that of exciting a vivid impreſſion of this ſort, accompliſh the ſame purpoſe. In the inſtance of iſchuria, when the ſuppreſſion ariſes merely from over-diſtenſion, or a temporary paralyſis of the fibres of the bladder, occaſioned by long retention of the urine, we do not ſee how a ſedative operation of any kind, and more eſpecially how the abſtraction of the ſtimulus of heat from the legs, can rouſe the languid actions of the bladder. We cannot help attributing ſomething in this caſe to the *ſtimulus of ſenſation.*

But, in truth, we deem theſe ſpeculations of trivial utility. Dr Stock has preſented us with a judicious view of numerous and important facts, in which he is fully borne out by the moſt authentic records of medicine. He has nowhere ſhown a diſpoſition to overrate, in the ſlighteſt degree, the virtues of the remedy whoſe powers he has undertaken to illuſtrate; but has evinced equal diſcrimination and candour in his ſtatements. Many of his facts, however, are confeſſedly not of modern production, and we almoſt wiſh that he had conſigned a larger portion of his work to the uſe of cold in febrile diſorders; a ſubject not only more novel in its nature, but againſt which a hoſt of prejudices ſtill remains to be conquered.

III.

Caſes of Pulmonary Conſumption, &c. healed with Uva Urſi; to which are added, ſome practical Obſervations. By ROBERT BOURNE, M. D. Aldrichian Profeſſor of the Practice of Phyſic in the Univerſity of Oxford, &c. &c. 8vo. Lond. 1806. pp. 293.

THE practical phyſician will no doubt ſit down to the peruſal of this, as of every other treatiſe on pulmonary conſumption, without any ſanguine hopes of receiving much uſeful or efficient inſtruction. A ſhort experience will have been ſufficient to convince him of the general inefficacy of medicine in any ſtage of true phthiſis; and an obſervation of the maſs of morbid ſtructure, which preſents itſelf to the eye on the expoſure of phthiſical lungs by diſſection, will have ſatisfied him of the extraordinary obſtacles which, in the latter ſtages, medicine has to encounter. But we apprehend his hopes will receive an additional depreſſion, if poſſible, in the preſent inſtance, in conſideration of the remedy which is recommended on this forlorn occaſion. The ſenſible qualities of *uva urſi* are extremely ſlight; its medical powers are ſummed up in a trifling degree of aſtringency; and, as a remedy in thoſe diſeaſes, in which it has been extolled as efficacious, or indeed in any other, we believe the general opinion deems it almoſt entirely inert. Great, however, as may be the reaſons for viewing a work of this nature with a ſceptical eye (and we have not enumerated them all), candour and philoſophy ſuggeſt a ſuſpenſion of our judgment until the reſult of experience be adequately reviewed, and the ſeries of facts be carefully inveſtigated.

Dr Bourne was led to make trial of *uva urſi* in pulmonary conſumption, in conſequence of the ſucceſs with which he had exhibited it in a caſe of apparent ulceration of the bladder, attended with hectic and emaciation. In this inſtance, the formula employed by Dr Ferriar was followed, viz. about ten grains of *uva urſi*, rather more than that quantity of *bark*, and half a grain of *opium*, three times in the day. Dr B. had previouſly uſed the *uva urſi* in two nephritic caſes, in the doſe of half a drachm, as recommended by De Haen, with the ſame want of ſucceſs which phyſicians in this country have uſually acknowledged.

After this preliminary notice, the author proceeds to relate the particulars of ſixteen caſes of apparent phthiſis, fourteen of which occurred in his own practice. In the obſervations which he afterwards makes on each caſe, he arranges them under four heads: 1. He conſiders the firſt eight as caſes of apparently true pulmonary conſumption in its firſt ſtage, or before purulent expectoration had taken place: 2. The three following as caſes of the ſame in its laſt ſtage, being attended with expectoration of *pus*: 3. The 12th and 13th as caſes of an affection of the lungs, in which there was purulent expectoration, but which were, nevertheleſs, not true phthiſis: and, 4. Caſes of hectic, in which the lungs appeared either not to have been primarily affected, or not at all, including the three laſt caſes. Of theſe 16 caſes, it appears that three died, two while under the remedies, and one in the ſucceeding winter; nine recovered, and four were apparently relieved. One obſervation occurred to us with reſpect to thoſe caſes which terminated favourably; they all began to take medicines in the ſpring and beginning of ſummer, and were in a ſtate of convaleſcence before the approach of winter. Now, if there is any one circumſtance which appears to poſſeſs an influence over the conſumptive, it is a warm or mild temperature.

The eight caſes of incipient conſumption will, we think, be peruſed with ſome degree of doubt. The difficulty of aſcertaining the preſence of phthiſis, in its early ſtage, is univerſally acknowledged. There is no pathognomonic ſymptom. In irritable conſtitutions, we have often ſeen teazing catarrhal coughs waſting even the ſtrength and fleſh of the patient, and accompanied by a marked hectic; yet the ordinary remedies have completely ſucceeded in removing it, and no future ſimilar attack has occurred. We know, too, that, in female habits eſpecially, a dry cough, with dyſpnœa, emaciation, &c. is frequently the concomitant of that languid ſtate of the ſyſtem which conſtitutes the principal feature of *chloroſis* and *amenorrhœa*, but which occurs alſo independently of theſe ſymptoms. A cough of this ſort is likewiſe an occaſional attendant of ſome forms of *dyſpepſia*, ariſing apparently from irritations in the viſcera adjacent to the lungs or trachea. We do not mention theſe facts as circumſtances of which Dr Bourne requires to be informed. His obſervations evince that, both from perſonal obſervation, and an acquaintance with the records of medicine, he has poſſeſſed himſelf of no inconſiderable ſhare of medical accompliſhments. But we mention them as circumſtances which will influence the opinion of the ordinary reader, but which may be not ſufficiently adverted to by one who is conducting experiments with the hopes of attaining a particular reſult, and whoſe conviction may be modified by his wiſhes. We ſhall quote Caſe III. as an example, chiefly on account of its brevity.

" S M. who lived in a village near Oxford, an unmarried woman, 28 years of age, rode over to me for advice on May 31, 1803. She had had a cough for ſix months, during the former part of which time it was troubleſome in the day only; latterly it had been ſo both night and day, and had been accompanied with fever. The cough was dry. For the laſt fortnight ſhe had had profuſe morning perſpirations. When ſhe applied to me, ſhe had loſt fleſh conſiderably; her tongue was white; her appetite indifferent; her breath ſhort; her pulſe frequent; and ſhe had ſome pain under the right breaſt. She menſtruated regularly.

I preſcribed ſeven grains of uva urſi, a quarter of a grain of opium, and three grains of liquorice powder, thrice in the day, to be taken in milk.

June 21. Cough much better, hardly at all troubleſome in the night. But little fever. Morning perſpirations much abated. No pain under the breaſt. Breath leſs ſhort. Tongue clean; appetite improved. Pulſe leſs frequent. She had taken her medicines very regularly.

She was directed to go on with the powders; but the uva urſi was increaſed to eight grains, the opium to the third of a grain.

July 3. She ſent me a very favourable report. *The uva urſi was now increaſed to nine grains.*

July 30. The cough and all other unfavourable ſymptoms were gone; her looks approached to thoſe of health; ſhe had gained conſiderable ſtrength.

She was adviſed to take one of her powders, night and morning, for ſome time to come."—Page 18.

On March 31, 1804, this patient continued well.

We believe that moſt practitioners will be ſatisfied that caſes of this nature not unfrequently occur, and yield to, or at leaſt recover under the uſe of, the ordinary remedies. At the ſame time, it will be admitted, that it is not eaſy to ſhow that ſuch caſes ſhall not terminate in genuine phthiſis. But the circumſtance is ſufficient to excite great diſtruſt of the powers of *uva urſi*.

Of the three caſes which are ranked under the ſecond head, of confirmed phthiſis, with purulent expectoration, two terminated fatally. The third is related in a letter to Dr Bourne from an apothecary at Banbury. A labouring man, aged 51, was attacked with hæmorrhage from the lungs, after conſiderable exertion, and loſt about a pint of blood. An inceſſant cough ſucceeded, with expectoration occaſionally ſtreaked with blood. Two months after the attack (viz. in May 1804), he applied to the reporter of the caſe. " He was much emaciated, his appetite bad, pulſe 120, and his breath ſo extremely ſhort, that it was not without difficulty he could get up ſtairs to bed; his fever uſually came on about ſix or ſeven o'clock in the evening, ſucceeded by profuſe night perſpirations; and the expectoration, which was apparently purulent, amounted generally to a full pint in the courſe of twelve hours. He began taking the *uva urſi* on the 14th May, in doſes of ten grains, twice a-day, combined with a ſmall quantity of *opium*, and he regularly perſevered in it for the ſpace of three weeks, with evident advantage: he now omitted the medicine for a ſhort time; but finding that his cough was worſe, and his complaints on the increaſe, he was glad to have recourſe to it again. He then continued its uſe, with great regularity, till the 6th of July, when I had the pleaſure of ſeeing my patient nearly well; his pulſe was only 86, his appetite remarkably good, and he had in a great degree recovered his fleſh: his breath was ſo good as to allow him to walk up a very ſteep hill; and I can now add (September 4. 1804), he is quite recovered, and enabled to purſue his uſual employment of a common labourer," page 62. Of this caſe Dr Bourne has heard nothing farther. From a ſingle caſe little can be inferred; ſo far as it goes, it appears to mark a connexion between the uſe of the medicine and the alleviation of the ſymptoms. But it may be remarked, that in a man of 51 years of age, who is neither ſaid to have had any conſtitutional tendency to phthiſis, nor to have been ſubject to cough before, the conſequences of a pulmonary hæmorrhage, accidentally produced, are not ſo difficult of alleviation or removal as the ulceration which occurs in phthiſical conſtitutions after the ruptue of pulmonary veſſels. Dr Bourne himſelf does not peremptorily decide whether it is "rightly arranged" under the ſecond head. Although fully aware of the diſcouraging appearances which generally preſent themſelves in the diſſection of phthiſical patients, he has dwelt at length upon the propriety of not ſuffering all hope to leave us in the more early ſtages of the diſorder. The miſchief, he affirms, is not always ſo extenſive as the quantity of *pus* expectorated would lead us to believe; and the greater part of it frequently takes place only a ſhort time previous to death, during which the progreſs of the diſeaſe is rapidly accelerated.

The 12th and 13th caſes rank under the third head. In commenting on theſe, the author diſtinguiſhes them from thoſe caſes of ulcerated lungs which conſtitute the ordinary form of phthiſis, as well as thoſe which ſucceed to pneumonia. In the two inſtances in queſtion, a large abſceſs had *inſidiouſly* been formed in the lungs, with little previous indiſpoſition, and with no one ſymptom that could indicate the extent of the miſchief which was going on. The author had ſeen three ſimilar caſes previous to his adoption of *uva urſi* as a remedy, all of which terminated in death. He remarks that, in four of the five, the matter diſcharged differed from that diſcharged from abſceſſes formed in ordinary phthiſis, or after pneumonic inflammation, in being extremely fetid; in four, alſo, the complexion was ſallow and duſky, and four were males. They were all above 23, and under 26 years of age.

As the three remaining caſes were confeſſedly not pulmonary conſumption, we ſhall not detain our readers with any account of them. The author is of opinion that, by fair analogy, they afford encouragement for the trial of *uva urſi* in all caſes of incipient or recently formed hectic, whatever be the part of the body wherein the local affection, on which the hectic depends, is ſeated. And he is hence led to ſuggeſt the probability of its remedial powers in ſcrofulous diſeaſes.

We cannot but wiſh that the author had accumulated a more ſatisfactory evidence in favour of theſe hypothetical ſuggeſtions, before he gave them to the world. From the experience of *three* caſes of hectic, connected with ſome irritation in the region of the uterus, of the lungs, or liver, he arrives not only at the ſweeping concluſion that all morbid ſtates of all the viſcera, which are accompanied with hectic fever, are probably curable by the ſame means, but alſo that other great and important organic actions or changes in the glands, or other parts of the body, will probably yield to the ſame drug. This is not the careful and clear mode of induction by which alone ſcience can be advanced with firm and ſteady ſteps, and by which ſome departments of medicine have of late years received the moſt material and irrefragable illuſtrations. Nor do we conceive it to be the beſt mode of ſatisfying the public of the efficacy of any remedy, nor of laying a claim to the merit of an uſeful diſcovery.

In his laſt chapter, the author proceeds to make ſome "pharmaceutical and practical obſervations" on the medicine in queſtion. He conſiders that the powder of *uva urſi*, which is often, if not commonly, ſold in the ſhops, is ill prepared, and not poſſeſſed of the full medicinal powers of the plant. The *green* leaves alone ſhould be ſelected and picked from the twigs, and dried by a moderate expoſure to heat. "The powder, when properly prepared, is of a light-brown colour, with a ſhade of greeniſh yellow. I have often met with it of a light-brown, without the greeniſh-yellow ſhade; and, when this is the caſe, I ſuſpect either that the leaves from which it was made were not duly ſelected, or that they were expoſed to too great a heat to render them pulverable. The expoſure to too great a heat is certainly the worſe fault; but neither fault is very venial, where health, perhaps life, is concerned. The powder has nearly the ſmell of good graſs-hay, as cut from the rick; to the taſte it is, at firſt, ſmartly aſtringent and bitteriſh; by and by theſe impreſſions on the palate ſoften into a liquorice flavour." We quote this more particularly, becauſe Dr B. affirms, that he "never ſaw a good ſpecimen of the powder which was not prepared in Oxford, or the neighbourhood;" and alſo to caution our readers that they pay particular attention to the medicine which they uſe, in order that their concluſions may be ſatisfactory even to the moſt faſtidious examiner.

We do not acquire much or very accurate information from the author's experiments. The principal concluſion which they afford is, "that water extracts from *uva urſi* nearly all that proof ſpirit is able to extract, and proof ſpirit nearly all that water is able," p. 208. Another is, that it contains the "aſtringent acid;" for a drop of the infuſion or tincture in a ſolution of ſulphate of iron produced a precipitate. Dr Bourne has not attempted to avail himſelf of the accurate means, which chemiſtry would have afforded him, of aſcertaining the quantity of this acid which it contains, nor of tracing the medicinal powers to any particular conſtituent part, the mucilaginous or reſinous for inſtance, of the plant.

With reſpect to the medicinal powers of *uva urſi*, he is of opinion, that even in the ſmaller doſes above ſpecified, it has now and then a very ſenſible effect on the nervous ſyſtem, producing occaſionally lowneſs, headach, or ſlight vertigo; that it has, in one or two inſtances, occaſioned an intermiſſion of the pulſe; and that occaſionally the pulſe becomes preternaturally ſmall during the uſe of it. Theſe effects are by no means ſtated as being ſo general as to be very obviouſly connected with the adminiſtration of the medicine; and, what is ſomewhat extraordinary, they do not ſeem to be greater, from a doſe conſiderably larger than thoſe which Dr B. was in the habit of uſing.

On the whole, the ſceptical diſpoſition with which we commenced the peruſal of this treatiſe, has not been greatly diminiſhed by a careful and ſerious execution of our taſk. In a diſeaſe, however, of a tendency ſo generally fatal as is that of pulmonary conſumption, every expedient, which promiſes even a chance of ſucceſs, ſhould be examined by the teſt of cautious experiment, until the full extent of its powers be clearly aſcertained; and we truſt that no *à priori* opinions will induce a neglect of the ſuggeſtions of Dr Bourne.

In an appendix, Dr B. has related ſix caſes more, in which he has had an opportunity of uſing *uva urſi* in apparently threatening conſumption, and which terminated favourably.

IV.

On Epilepſy, and the Uſe of the Viſcus Quercinus, or Miſletoe of the Oak, in the Cure of that Diſeaſe. By HENRY FRASER, M. D. 8vo. pp. 96. London. 1806.

WE neceſſarily open a treatiſe like the preſent with ſome degree of ſcepticiſm. The numerous remedies which have been confidently recommended for the cure of epilepſy, but ſubſequently employed as mere palliatives, or abandoned altogether as inefficient, immediately recur to our recollection. Nor can we forget the frequency of organic cauſes in producing the diſeaſe, or its general obſtinacy even under the plans of treatment moſt generally adopted. We confeſs, too, that this ſcepticiſm is farther excited, in the preſent inſtance, by an impreſſion on our minds that the *miſletoe* is rather inert as to any medicinal properties, and that its recorded efficacy was rather the reſult of the ſuperſtitious aſſociations belonging to it, than of any innate powers. Dr Fraſer recommends it, however, not as a decided remedy, but as one which has been attended with ſo much ſucceſs in eleven caſes of epilepſy, in which he preſcribed it, as to render it worthy of a more extenſive trial. He has enumerated the names of eighteen authors who have mentioned its efficacy in this diſeaſe, from the age of Pliny to the preſent time; but the majority of them, we fear, will not be deemed more ſatisfactory authority than the credulous Roman himſelf. The account of the caſes in which Dr Fraſer experienced the powers of the viſcus is very brief and uncircumſtantial, and is preceded by a ſyſtematic view of the ſymptoms, cauſes, &c. of epilepſy, ſomewhat after the model of an inaugural diſſertation, and abounding with references to authors. To moſt readers this detail is unneceſſary; and it would appear that the object of the author would have been more effectually accompliſhed by a ſimple and circumſtantial relation of the inſtances in which the remedy proved ſerviceable. The following is the ſum of his detail:

"The firſt caſe, in which I employed the viſcus quercinus in the cure of epilepſy, was that of a gentleman in the 23d year of his age, who had been the ſubject of epilepſy from the third or fourth year of his birth. The caſe was hereditary, and had gradually increaſed upon the patient, until it was become ſo conſiderable as to threaten his intellectual faculties with deſtruction. On the 5th March 1802, he began to uſe the miſletoe, by taking two ſcruples of the powder in a draught of camphorated emulſion twice daily, and the uſe of this medicine (the doſe of the powder being gradually increaſed to two drachms) was continued without intermiſſion till the 21ſt of June. The violence and frequency of the paroxyſms experienced no viſible abatement before the expiration of the firſt month from the commencement of the uſe of the miſletoe; but, after this period, they became conſiderably milder, and about the middle of June he bade farewell to his almoſt conſtant but diſagreeable companion."

Of the 2d and 3d caſes we are merely told, that the diſeaſe continued for a conſiderable length of time, and, after valerian had failed, it was cured by the viſcus, given twice a-day for three months. The patients were in the prime of life. The 4th was a delicate female, who had been ſubject to epilepſy five years. The 5th, 6th, and 7th caſes occurred in two boys of twelve and fifteen years age, and a girl of nine. "Theſe caſes were neither hereditary nor violent, and were ſpeedily cured by the miſletoe, after a combination of bark and valerian had proved ineffectual."

"The 8th caſe was the moſt violent I ever witneſſed. The patient was apparently a robuſt man of 30 years of age, 22 of which he had been at various times the ſubject of epilepſy. The paroxyſms in this caſe did not occur very frequently,

quently, nor even ever without giving warning of their approach; but, when occurring, were exceſſively violent and long continued. The plethoric ſtate of the patient naturally led to the employment of the antiphlogiſtic plan of treatment, by a rigid perſeverance in which, he was twice reduced nearly to the grave, without reaping the leaſt benefit in his complaint. This patient continued the uſe of the miſletoe at ſtated intervals for nearly ſix months, and, during this period, he drank, regularly every ſecond or third morning, half a pint of tepid water, in which two to three drachms of ſulphate of magneſia had previouſly been diſſolved. By perſevering in this plan of treatment for the length of time before-mentioned, and by ſtudiouſly avoiding irregularities in living, and exceſſive exerciſe, he has been fortunate enough to ſhake off his complaint."

"The 9th caſe was ſimilar to the 4th."—The 10th proved fatal: it occurred in an elderly lady, and was complicated with a paralyſis of the right ſide.

Though we ſpeak ſceptically on the ſubject, we by no means intend to be guilty of a dereliction of thoſe principles of philoſophical inquiry, by which alone medicine, in common with the other ſciences, can be ſucceſsfully cultivated;—the matter cannot be determined but by cautious experiment; and we think with the author, that the ſucceſs which he has deſcribed is ſufficient to recommend the further trial of the remedy. The powder of the viſcus quercinus, he informs us, may be obtained by applying to Meſſ. Allen and Wood, *Plough-court, Lombard-ſtreet,* or Meſſ. Jackſon, Manley, and Eldridge, *Paternoſter-row.*

V.

Darſtellung der Gallſchen Gehirn-und Schädel-Lehre, von Dr C. H. Bischoff, *auſſerordentlichen Profeſſor am Koenigl. Colleg. Medico.-chirurgico, und practiſchem Artzte zu Berlin: nebſt Bemerkungen über dieſe Lehre, von* Dr C. W. Hufeland, *Königl. Preuſſ. geheimen Rath, wirkl. Leibartzt, Director des Coll. Med. Chirurg. &c.* 8vo. Berlin. 1805.

" *Etwas über Herrn Doctor Gall's Hirnſchädel Lehre dem Berliner Publicum mitgetheilt, von* J. G. Walter, *erſtem Profeſſor der Anatomie und Königl. geheimen Rath.* 2 *Theile.* Berlin. 1805.

Every body has heard ſomething about the celebrated Dr Gall and his doctrine of cranioſcopy; but every body does not know that ſome curious anatomical diſcoveries have been made the baſis of ſuch fanciful conjectures. It will not be riſking too much to make ſuch an aſſertion, ſince we find in the work before us the indiſputable teſtimony of ſeveral learned and reſpectable men, in favour of the truth of many of Gall's obſervations. But there have been opponents as well as advocates, (for what ſubject can be ſtarted in Germany without having writers on both ſides?) and we have ſelected the work above mentioned, and the two pamphlets of Profeſſor Walter, in order to lay before our readers a full and fair view of the arguments and reaſoning employed by both parties. The two authors, whoſe names are prefixed to the title-page of the book of which ſome account is firſt to be given, are actuated by the laudable ambition of giving a correct notion of the doctrine of cranioſcopy, and no one can doubt their qualifications for ſuch a taſk, inaſmuch as *Dr Biſchoff* is a profeſſor of anatomy and phyſiology, and attended Gall's lectures and demonſtrations; and *Hufeland*, whoſe name is well known, became a convert to ſome parts of the doctrine, after having ſeen the anatomical illuſtrations, and heard the author himſelf expound his ſyſtem. However, it appears not unworthy of remark, among the ſwarm of publications upon this ſubject, of the hoſt of expoſitions, refutations, criticiſms, and explanations, not one is the work of Gall's own hands. This way of making known his theory and diſcoveries is ſingular. A doctor of medicine gives public lectures, is praiſed for having made ſublime diſcoveries, is accuſed of groſs miſtakes and falſehoods, is charged with gaining ſo many diſciples by his truths or his blunders, that the ſafety of church and ſtate is endangered; and yet, when any perſon writes againſt him, or any government forbids his lecturing, he chooſes to remain ſilent, and allow others to anſwer the attacks made upon him. If he were truly deſirous of inſiſting upon the diſcoveries he has made, if he had confidence in his ability to vindicate his opinions, why not purſue the manly and open courſe? Why not give a detailed account of his obſervations, and, inſtead of the poor excuſe of ſaying his opponents do not underſtand what he means, why does he not furniſh arguments which cannot be miſunderſtood? Inſtead of ſuch plain and honourable conduct, Dr Gall is determined to take all advantages of public clamour and partial applauſe; he ſcreens himſelf by a ſtratagem which every man of true ſcience, every lover of truth, would never have recourſe to. He probably finds it more profitable and more pleaſant to travel about from place to place, and to give lectures, than to write and to print. Reſtrained by no delicacy, ſuch inexorable abſtinence from the preſs appears extraordinary, and naturally excites ſome ſuſpicion with reſpect to the motives. There is ſome alluſion to a great work which the author is ſaid to be preparing for publication, but, till that appears, the public muſt be content with oral tradition, and with the copies of the lectures printed by his pupils. Many objections ſtarted againſt Dr Gall's theory have been founded on topics not at all eſſential to the diſcuſſion, and much wit and ingenuity have been waſted on queſtions, not unfit, indeed, to be mixed with the ſubject, but quite unneceſſary for its illuſtration. The outcry and ſtale ſtories againſt neceſſity, free-will, and materialiſm, may be paſſed over, without troubling our readers either with a repetition of the different arguments, or the refutation.

We ſhall give firſt an abſtract of the principal contents of Dr Biſchoff's book, which may be looked upon as a correct epitome of Gall's lectures; afterwards we ſhall give the reſult of Dr Hufeland's critical remarks, and then ſtate ſome objections to the doctrine itſelf, partly ſuggeſted by Profeſſor Walter's pamphlets, and partly ſuch as have occurred during the peruſal of various fugitive pamphlets upon this temporary topic of writing and converſation.

Dr Gall was led to conſider the brain as a membrane, and not a pulpy ſubſtance, as hitherto ſuppoſed, from obſerving that the intellectual faculties remained unimpaired in caſes of hydrocephalus internus, where a quantity of water is collected in the ventricles, and the whole ſubſtance of the brain becomes ſometimes diſtended to a membrane ſcarcely a line in thickneſs. Other pathological facts, ſuch as the paralyſis of the extremities, in conſequence of injuries done to the hemiſpheres of the brain, induced him to remark, that an uninterrupted connexion muſt exiſt between theſe parts and the ſpinal marrow. With the view of tracing this connexion, and at the ſame time to demonſtrate the membranous ſtructure of the brain, he engaged in a ſeries of anatomical reſearches for many years, till at laſt he had the ſatisfaction of finding his conjectures verified by anatomical diſcoveries. He attributes his ſucceſs to his manner of diſſecting the brain from the lower parts, beginning with the cerebellum and ſpinal marrow, and going upwards, inſtead of following the uſual cuſtom of beginning the demonſtration at the external ſuperior parts, and ſlicing downwards; and, inſtead of a knife, which cuts and deſtroys the relative ſituation of the ſeveral parts, he employs the handle of a diſſecting-knife, or ſome blunt inſtrument, and unravels, as it were, the different circumvolutions of which the cerebrum and cerebellum are compoſed.

The reſult of his reſearches is ſo minutely detailed in the communication with which we have been favoured by Profeſſor

Roſenmuller, that, to avoid repetition, we have ſuppreſſed our analyſis of this part of Dr Biſchoff's work, and ſhall content ourſelves with obſerving that the principal points of the anatomical diſcoveries ſeem reducible to the three following aſſertions:

1ſt, The origin of the medullary ſubſtance of the cerebrum and cerebellum is derived from the ſpinal marrow.

2nd, The cortical ſubſtance is the ſuperficial ganglion of the cerebrum and cerebellum.

3d, All the excurrent nerves terminate in the outer ſurface of the cortical ſubſtance on which the pia mater reſts, and all the recurrent nerves take their origin at this place.

Anatomiſts have uſually taught, that the medulla oblongata, the medulla ſpinalis, and pons Varolii, are formed by elongations of the ſubſtance compoſing the cerebrum and cerebellum. Gall aſſerts directly the reverſe: it is true, he goes the very oppoſite way to work, to demonſtrate this intricate ſtructure; and it is important to prove thus much, becauſe the reſt of the phyſiological reaſonings hinge upon theſe three principal facts. He derives all the chief nerves, too, from the ſpinal marrow, which is ſaid to conſiſt of bundles of fibres; eleven have been already diſcovered, and he has traced the corpora pyramidalia through the pons Varolii, crura cerebri, into the ſubſtance of the brain. If theſe circumſtances be all true, they are curious, and demand farther examination. Profeſſor Walter declares, there is no truth in what Gall pretends to have found out; the preparations diſplayed, and the ſtructure talked about, are only the fictions of his fancy, and he proteſts he ſaw nothing of what was ſaid to be ſo clearly proved. Other perſons, equally capable of judging, and perhaps more quick-ſighted, not only ſaw what Gall propoſed to ſhow, but do juſtice to the accuracy of his obſervations, by acknowledging their firm conviction of their truth. In the work before us, we find the names of Loder and Reil, two very eminent men in the univerſity of Halle, brought forward to ſupport the claims of Gall. Loder writes in terms of great praiſe, and communicates a caſe, illuſtrating a part of Gall's new obſervations, at the ſame time acknowledging the want of a ſufficient number of facts to confirm the theory of the different organs, and declaring himſelf a champion in the purſuit of truth. This is high authority. Whatever may be the final reſult of all the noiſe and rout, ſome of the principal circumſtances are now under trial. The controverſy is, in ſome degree, in the hands of thoſe beſt qualified to judge its merits; by the obſervations of diſtinguiſhed anatomiſts, the whole fabric of fame and future utility muſt ſtand or fall, and the reputation of Dr

Gall muſt ſoon be correctly eſtimated, in order that the ſcientific part of the world may put him on the ſame ſhelf with Willis, Varolius, and Haller, or claſs him with another far-famed part of our fraternity, Drs Fauſtus and Sangrado.

In the ſecond diviſion of his explanatory eſſay, Dr Biſchoff has endeavoured to give a preciſe definition of what is meant by the doctrine of the ſkull, and organs of the brain; or what, to uſe a new term for a new ſubject, he has denominated *cranioſcopy*. It was noticed, in the former part of the expoſition, that every one of thoſe nervous ſtreaks, perceived in the great ganglion of the brain, makes a particular circumvolution of the hemiſpheres, and is to be conſidered as the organ of a particular function of the mind; *i.e.* each ſtreak may be looked upon as a part on which the mind operates according to a determined degree of force, and its ſtructure is ſo organized as to receive the impreſſions communicated to it. A knowledge of theſe organs, acquired by obſerving the protuberances and depreſſions which they make upon the bones of the cranium, conſequently a knowledge of the prediſpoſition of the brain for particular actions, conſtitutes the object of *cranioſcopy*. After this definition, however, it is acknowledged, that we cannot perceive the real diſpoſition or already developed faculty of the mind by mere obſervations made on the ſkull; the tendency only, or the aptitude, or poſſibility of any particular intellectual quality in any individual can be diſcovered; and, beſides, all the prediſpoſitions cannot be detected by looking at the ſkull, becauſe many of the ſuppoſed organs cannot influence the ſhape of the bones, in conſequence of their remote ſituation. All the organs, hence all the prediſpoſitions, both in men and animals, are ſaid to be innate. The functions of the brain are threefold; *1ſt*, Organic life; *2d*, Senſitive life; *3dly*, Intellectual life. A particular part of the brain is aſſigned to each of theſe functions; it is only in conſequence of the ſize of the hemiſpheres (the part appropriated for the laſt of theſe functions) that man has the largeſt brain, and not becauſe the ſize of the human brain is greater in proportion to the reſt of the body, as hitherto generally ſuppoſed, nor on account of the comparative thickneſs and ſtrength of the nerves, as *Soemmering* has remarked. To prove that the organs of thought are placed in the hemiſpheres of the brain, theſe parts are ſaid to be larger, and to be more completely developed, in different claſſes of animals, in proportion to their intellectual faculties; and they are moſt perfect in man. As each faculty of the mind has its peculiar name, its particular organ, like each of the five ſenſes, ſo the brain is not to be conſidered as one whole organ of intellect, common to all the mental operations,

rations, but as a collection or aſſemblage of organs, a ſpot in which all the different organs are united together. This hypotheſis, of a ſeparate and diſtinct part of the brain being adapted for each different faculty of the mind, is very old: it is to be found in the writings of Boerhaave, Haller, Van Swieten, Soemmering, Prochaſka, &c.; and the Academy of Dijon long ago propoſed, as the ſubject of a prize queſtion, to determine the ſituation of the different organs. It is neceſſary, however, firſt to demonſtrate the exiſtence of ſuch a variety of organs; and here we find a ſeries of propoſitions, which are called certain and convincing proofs. To us, indeed, they appear but very inſufficient reaſons, being only a mutilated repetition of the common arguments employed on this very difficult queſtion.

Next follows an enumeration of the different organs, to which Dr Gall has the merit of aſſigning a local habitation and a name. Theſe are claſſed under three diviſions: The *firſt* includes thoſe organs by whoſe means man is enabled to act directly upon the objects around him, and are no leſs than eleven in number,

1. Sexual love.
2. Parental tenderneſs.
3. Friendſhip, or faithful attachment.
4. The organ of fighting.
5. The organ of murder.
6. The organ of cunning.
7. The organ of ſtealing.
8. The organ of goodneſs or benevolence.
9. The organ of the faculty of imitation.
10. The organ of ambition or vanity.
11. The organ of conſtancy or firmneſs.

The *ſecond* order comprehends thoſe organs which place man in cloſer relation with ſurrounding objects than he can be by the aid of his external ſenſes, and theſe amount to eleven more.

1. The organ for acquiring a knowledge of things. 2. Of places. 3. Of perſons. 4. Of colours. 5. Of ſounds. 6. Of numbers. 7. Of calculations. 8. Of languages. 9. Of arts. 10. The organ of prudence. 11. The organ of high-mindedneſs and elevated ſentiment.

Under the *third* diviſion are placed thoſe organs connected with the higheſt operations of the human intellect:—1. The organ of the power of compariſon. 2. Of metaphyſical penetration. 3. Of wit. 4. Of religion.

"The firſt in this liſt, the organ of the ſexual paſſion, is ſeated, we are told, in the cerebellum, and diſcovers itſelf upon the cranium, at that part of the occipital bone which is below the linea ſemicircularis inferior, towards the great occipital foramen. In the living ſubject, this organ can only be detected by the large ſize and thickneſs of the nape of the neck. Its exiſtence in the cerebellum is proved by the following reaſons: 1. The cerebellum, and the parts of the ſkull correſponding to it, develope themſelves more and more with age, and with the growth of the paſſion for the ſexes, and not at all in proportion to the other parts of the brain and head. 2. In animals of the moſt ſimple organization, in inſects, the whole maſs of brain only conſiſts of two ſmall nervous knots which conſtitute the cerebellum. Even theſe two knots are not found in animals which do not propagate their ſpecies by copulation. Bulls and ſtallions, &c. have the cerebellum more completely developed: hence the back-part of their heads is larger, and their neck thicker. In general, males have the neck thicker than females: the cerebellum in females is ſmaller, and placed nearer to the occipital hole. Thoſe animals, whoſe ears ſtand at a wide diſtance one from another, are ſelected for the ſtud. Mules have their ears cloſe together, and a very ſmall neck, and have no procreative faculty. 3. Caſtrated animals have a thin neck. The ox, for inſtance, has the hinder part of his head and neck narrower and ſmaller than the bull. The horns grow larger in the ox, becauſe the proceſs of oſſification increaſes as the ſize of the brain diminiſhes. If the horns of a deer, the formation of which depend likewiſe on the cerebellum, be cut towards the rutting ſeaſon, the animal becomes impotent; but becomes fit for procreation the following year, if the horns be left. Gall declares, he found a lady's neck one day very hot, remarkably ſwelled and painful: the neck was extraordinarily thick in this caſe; it was a patient affected with *nymphomania*. The weakneſs of the intellectual faculties, which follows exceſſive ſenſual indulgence, the pain, heat, and ſpaſms of the neck, ſhow not only that the brain in general, but the cerebellum in particular, is concerned in the function of generation. Laſcivious girls, according to the report of libertines, put their hands to their necks when ſtrongly excited. Injuries done to the nape of the neck are followed by impotence. Another deciſive proof of the organ of ſenſual love being ſeated in the cerebellum is furniſhed by a pathological fact obſerved in hydrocephalus. The faculty of generation is often the only one which remains unaffected, becauſe the cerebellum ſuffers leſs than any other part from water collected in the head. This organ of ſexual love is double, as the teſticles and kidnies, according to the law, that all the organs of animal life are in pairs."—P. 000.

Take another ſpecimen, gentle reader, from another place.

"The organ which is the ſeat of the diſpoſition for acquiring a knowledge of places (*Organ des Ortſinns*) is ſituated on the forehead: it is double, and occupies juſt half the ſuperciliary arch on each ſide towards the noſe. It announces a ſuſceptibility for receiving ſtrong impreſſions from a ſurvey of particular places, ſo as to recal them eaſily to memory, and find them again. This organ is indiſpenſably neceſſary to many animals, becauſe they inhabit particular places, and often wander to a great diſtance. By the periodical action of this organ, various birds are inſtigated to take long flights; the dog is enabled to travel many hundred miles home, and find out his old maſter; pigeons can ſerve the purpoſe of a letter-carrier, and birds which migrate can return to their former habitations. This organ for finding places does not depend on the ſenſe of ſmelling, becauſe a dog has been known to have croſſed the ſea, and found his way home, and pigeons return home too from conſiderable diſtances, which has never been aſcribed to the delicacy of their noſes. Perſons, who have this organ in a great degree, are fond of travelling, and they know how to find their way any where. General officers, fortunately provided with this organ in perfection, are capable of forming plans and military projects, and can take advantage of poſitions and local ſituation. This is particularly exemplified in the caſe of General Mack, who has this organ ſtrongly marked. Captain Cook alſo had it in a ſtriking degree." P. 99.

Theſe two extracts are literally tranſlated from the book before us, and therefore may be taken as a fair ſample of the ſubſtance of the lectures. No doubt, they will be thought particularly profound and inſtructive. From the latter quotation, we learn ſeveral circumſtances which, in the phenomena of nature, have hitherto been difficult to explain. The annual migration of birds, we are now informed, is in conſequence of the ſpontaneous and periodical action of a portion of their brain ſituated over their eyebrows;—the ſingular inſtances of ſagacity obſerved in dogs returning to their former maſters, eſpecially the fact alluded to (for which Dr Gall's authority is vouched), of a dog going down to the water-ſide, to Graveſend we will ſuppoſe, embarking in a London trader bound to Hamburgh, in order to return to his old maſter, perhaps at Berlin. Furthermore our countryman, Captain Cook, was led to make his memorable voyages of diſcovery in conſequence of a lump upon his forehead; and the illuſtrious General Mack, it ſeems, has the organ of finding places (*hiding-places probably*) in a moſt aſtoniſhing degree. For this laſt illuſtration every body muſt do juſtice to the critical acumen of the cranioſcopiſt. Some doubts may be fairly entertained as to the reſt of his explanations; but it is plain now why Mack took ſuch a poſition at Ulm, and why he did nothing elſe but avail himſelf of this place-taking organ. It is to be feared this occupied too large a portion of his brain, to the excluſion of ſome other equally uſeful part.

There is a ſimilar commentary upon each of the organs already enumerated; but it would be treſpaſſing too much upon the patience of our readers to enlarge the quotation; and ſtill more would it be an inſult to the judgment and good ſenſe of any ſcientific men in the united kingdoms to think any refutation neceſſary. Dr Gall allows the brain to be the organ of all intellectual operations: This is modeſt at leaſt, though no very great diſcovery; for nobody has ever doubted, from the time of Epicurus down to the preſent day, that men think by means of their heads, as they walk by means of their heels. With regard to the diſcovery of particular organs exiſting in particular places, there appears hitherto no foundation for ſuch an hypotheſis, in ſo far as Gall has examined the ſubject; for he confeſſes he can aſſign no particular organ for reaſon, volition, conſcience, or memory. Theſe faculties, he ſays, are common to all parts of the brain; no reſidence is aſſigned for them; yet if there be any chance of diſcovering the ſeat of particular faculties, aſſociated with the healthy condition of particular parts, memory would ſooneſt be found out, becauſe the loſs of it by paralyſis, by injuries done to the head, and the remarkable degree of its exiſtence in ſome men and certain animals, ſeem to point out ſome clue for our inquiries. Suppoſing it proved that particular portions of the brain are organized for the expreſſion of particular paſſions and feelings, it is impoſſible that ſuch a ſtructure ſhould be viſible, or could be detected upon the outſide of the bones of the ſkull, becauſe the delicate ſoft texture of the brain itſelf could only ſlightly influence ſome parts of the internal layer of the bone, and that is often not in contact with the outer. One faithful example would be worth fifty fanciful or forged illuſtrations. Has any perſon, born deaf and dumb, ſhown any particular ſigns on the external form or internal ſtructure of his head? Has any difference been obſerved even in the organ of hearing in every inſtance? We doubt the fact. What, then, ſhall be ſaid to the pretended diſcovery of the ſeat of friendſhip, or of the propenſity for theft or murder? Gall acknowledges his ignorance of the preciſe ſituation of all the organs; and accordingly we obſerve a large ſpace of terra incognita ſtill left unexplored upon the charts which he has given of the cranium. It is alſo allowed that an organ may exiſt, and not ſhow itſelf, nor diſplay its energy, notwithſtanding it may be ſtrongly marked. Perſons have loſt by external accidents conſiderable portions of the brain, of courſe ſeveral organs, according to Gall's doctrine, without ſuffering any loſs or diminution of their intellectual faculties. This ſingle circumſtance is enough of itſelf to invalidate the whole theory.

Profeſſor Walter, in his animadverſions upon the doctrine of cranioſcopy, is very bitter againſt the author. The wrath of the venerable anatomiſt is ſometimes quite laughable; he ſurely might have refuted his antagoniſt without abuſing the object of his lectures, and without referring to the fatal conſequences of his opinions, ſuppoſing them to be true. Such reaſoning avails nothing in phyſics or in metaphyſics. The profeſſor would have done better not to have run ſo often out of his muſeum to pick a quarrel with people in the ſtreet. The pages of both theſe pamphlets are filled with dull attempts at wit, partly copied from newſpaper ſcribblers, and partly written for the occaſion by Profeſſor Walter himſelf. He declares that Dr Gall is completely ignorant of anatomy; that much was promiſed, and very little performed; that he ſaw no ſuch parts as were pretended to be ſhown; and was not at all ſatisfied with the artificial wax-preparations and ſarcaſtic jokes which aſtoniſhed the gaping multitude, and ſtill leſs with the anſwers ſent to ſome queries ſubmitted in the form of a round-robin. For it appears that Gall condeſcended to enter a little in explanation in a newſpaper, in order to appeaſe his opponent, and to ſatisfy the public. The truth of the matter ſeems to be this: Gall's lectures tickled the fancy of the people of Berlin; he gave no leſs than ſix courſes there: they became the univerſal topic of converſation in every ſociety and in every place, from the palace down to the poſt-houſe, and, like other much talked-of things, they became a ſubject of party-ſpirit. Profeſſor Walter thought himſelf called upon to decide for the *Berlin publicum*, as he ſays in his title-page and preface; and he has ſignalized himſelf rather as a vain and vexed controverſialiſt, than as a ſound reaſoner and formidable adverſary.

The '*Remarks*' by Dr Hufeland are very different in their tone and temper from thoſe juſt alluded to. Although not particularly new or ſtriking, they betray good ſenſe and candid judgment. He ſays, no one could be more prepoſſeſſed againſt Gall's doctrine than he was himſelf, before he became acquainted with the author; and only by attending the lectures and demonſtrations, by being convinced from what he ſaw, he has became a partizan. Such a confeſſion is authorized by an appeal to facts, and is publiſhed from his deſire of expreſſing the truth under any ſhape. The anatomical is properly ſeparated from the phyſiological part of the lectures: to the former nothing remains to be added to Dr Biſchoff's detail, which is approved both by Hufeland and by Loder. It is only neceſſary to have eyes, and to open them, to be convinced of what Gall demonſtrated concerning the direction of the nerves, the croſſing of the corpora pyramidalia, &c. In order to ſee this ſtructure, the brain muſt be diſſected after Gall's method, beginning at the medulla oblongata, and following the parts from below, upwards, through all their ramifications. With regard to the diſcovery of their being two diſtinct ſorts of nerves, one going to the circumference of the brain, and the other returning to the centre, and theſe two ſets always being found together, Hufeland expreſſes his want of faith. He has not diſtinctly ſeen theſe nerves running in oppoſite directions, and remarks, that no arguments can be drawn from one ſet being accompanied by arteries, and the other by veins, becauſe, wherever arteries are found, veins are found alſo. He objects ſtill further to the idea of the different organs being placed upon the external parts of the brain. The two tables of the ſkull are not parallel in their whole extent, as may be eaſily found by making a vertical or horizontal ſection. If it were true that the eminences upon the outſide of the bones of the head were produced by the figure of the different parts of the brain, the internal ſhape of the cranium ought to correſpond preciſely with the external. A mould of wax or plaſter, caſt in the inſide of the ſkull, ought to repreſent the ſame appearances, only on a ſmaller ſcale, as the outſide. This experiment has been made ſeveral times, and the difference was very obvious and remarkable. Hufeland has met with ſeveral perſons of his acquaintance, whoſe imaginary ſhaped heads do not correſpond in the leaſt degree with the real ſtate of their intellectual faculties and diſpoſition.

He concludes the reſult of his examination in the following words: "I admit the doctrine of Gall, inaſmuch as it makes the brain the organ of the intellectual functions, and aſſigns particular functions to particular and differently organized parts; but I deny that theſe different organs always ſhow themſelves on the ſurface of the brain by eminences, and ſtill leſs can I allow the eminences obſerved to have been formed ſolely by the action or developement of theſe organs, ſo as to lead us to infer the exiſtence of certain intellectual qualities. The doctrine, therefore, ſeems theoretically true, but by no means demonſtrated; or, in other words, *organology is fundamentally true, but organoſcopy is doubtful.*" P. 147.

In the concluding part of his remarks, Hufeland conſiders the utility and the application of the doctrine. He diſcuſſes its influence upon our ſpeculative opinions, and its practical application to the ſcience of phyſiognomy, to morals, to juriſprudence, and to medicine. The eaſieſt reply to the queſtion *cui bono* appears to be, that it is an abſurdity calculated to do neither good nor harm among people of ſound ſenſe and reflection. Many of the obſervations made by the judicious commentator are only calculated for the place where they were written, and for the people for whom they were intended. At Berlin, Gall himſelf carried his ſyſtem too far, for he was induced to pay a viſit to the priſon and houſe of correction, and diſplayed his critical tact upon the ſkulls of the unfortunate culprits. An account of Gall's viſitation is given in a periodical journal called "*der Freymuthige*," ſaid to be written by one of the chief magiſtrates who accompanied him. The whole hiſtory is curious and entertaining, for more reaſons than one. Gall was attended by ſeveral diſtinguiſhed magiſtrates, profeſſors, and literati. About two hundred priſoners were ſubmitted to his touch, and, without knowing any thing previouſly of their crimes or their character, he diſcovered their whole hiſtory by fumbling their foreheads. He pointed out a great reſemblance in the ſhape of all their heads, eſpecially the young rogues, when put in a row; theſe were ſo much alike, that the whole party could almoſt believe they belonged to one family. The organ of theft was ſtrongly marked in them all, and the protuberances characterizing the great and noble feelings were very deficient. So erudite and refined was the doctor's touch, that, it is aſſerted, he not only detected the great rogues from the petty raſcals, but declared, by feeling their ſkulls, who were confined for theft, and who were impriſoned for more heinous offences!

High-German doctors are not ſo much in faſhion in this country as formerly; yet ſuch exhibitions as theſe, and ſuch talking, with the aid of a pea-green coat, a gold-laced hat, and a hand-organ, might do ſomething even at this day, perhaps, in country-towns, and at Bartholomew-fair. In other reſpects, there is no danger of Gall's theory making much progreſs in this quarter of the world. It ſeems probable that he has obſerved ſome hitherto unnoticed parts in the brain, and detected ſome eminences and depreſſions on the bones of the head among men and animals: he ſeems to have diſcovered alſo ſome curious inſtances of ſtructure correſponding with the manners and habits of different animals, and, by the aid of a fertile imagination, he has worked theſe inſulated facts into a ſort of ſyſtem,

tem, intended at firſt merely to amuſe a circle of friends, but found at laſt ſufficiently attractive to gain money and fame. "*Mundus vult decipi, decipiatur,*" ſeems to have been Gall's motto, and with this he has travelled about Germany with great ſucceſs. If he ſhould ſtray to Goettingen, we would adviſe him to look at the collection of ſkulls of different nations in Blumenbach's muſeum; he would there find, perhaps, that other cauſes, beſides the ſuppoſed organs of the brain, contribute to modify the ſhape of the bones of the head. The action of the muſcles attached to different parts of the cranium, the particular dreſſes among different tribes and particular employments, have conſiderable effect in varying the ſhape of the ſkull. This circumſtance ſeems to have been overlooked, for there is no alluſion to the odd-ſhaped heads of different races among mankind in the ſeveral accounts given of the lectures. Not having had the advantage of hearing the lectures delivered by the author, nor ſeen his demonſtrations and preparations, we muſt be content with what is publiſhed by the beſt authority; and, from all hitherto publiſhed, we muſt confeſs our prejudice and creed not at all changed. Conſidering the doctrine as a good quiz, we readily accede a due portion of praiſe to the ingenuity of Doctor Gall. As to his obſervations on the ſtructure of the brain, we muſt ſuſpend our judgment till further inveſtigations and more impartial inquiries are made; and at preſent we muſt look upon the whole matter as one inſtance, among many, of that abſurd love of ſyſtematic novelty which is ſo prevalent in Germany, and carries ſo many people away from the plain and uſeful path of obſervation and experience.

VI.

Obſervations on Abortion; containing an Account of the Manner in which it takes place, the Cauſes which produce it, and the Method of preventing or treating it. By JOHN BURNS, Lecturer on Midwifery, and Member of the Faculty of Phyſicians and Surgeons in Glaſgow. London. 1806. 8vo. pp. 139.

THE author of the little volume now before us is already favourably known to the profeſſion by his diſſertations on inflammation, and by a ſmall work on the gravid uterus; and, with the latter, the ſubject of the preſent treatiſe is in ſome meaſure connected. The ſubject of abortion is one of conſiderable practical importance, and, in many points of view, highly intereſting. There are few ſituations in which the intelligent practitioner can give more uſeful advice than when conſulted in caſes of habitual and of threatened abortion; nor, when we conſider the alarm, and ſometimes danger, which attends the progreſs of actual abortion from ſudden and profuſe floodings, is there any which requires more prompt and active aſſiſtance. Even when this firſt danger is over, when the abortion has been completed, and the hæmorrhage ſuppreſſed, the patient is often left in a ſtate of weakneſs, and ſometimes of diſeaſe, which claims the attendance of the phyſician. But the principles of our conduct in theſe caſes are neceſſarily grounded on a knowledge of the anatomy and of the functions of the ovum and gravid uterus, and of the cauſes of thoſe deranged actions which bring on abortion. Theſe general principles, and the prevention and treatment of abortion, are perſpicuouſly explained by Mr Burns under the following heads: The formation of the ovum. The manner in which abortion takes place; The cauſes giving riſe to abortion; The prognoſis; The prevention and treatment of abortion.

The obſervations of our author on the ſtructure of the ovum, and the view he has taken of the formation of ſome of its parts, are new and intereſting. He deſcribes the decidua as entirely of vaſcular formation, tracing its origin to an elongation of the veſſels of the fundus uteri, or to a new efflorеſcence or growth of delicate veſſels ſhooting perpendicularly from the uterine ſurface. From theſe primary veſſels, again, there ſprings, according to Mr Burns, a fine vaſcular tiſſue, in the oppoſite direction, or parallel to the uterus; and this ſecondary production conſtitutes what has been called the decidua reflexa. But as this account of the formation and ſtructure of the ovum has already been laid before our readers in the Fifth Number of our Journal, it becomes unneceſſary to offer any farther remarks on theſe ingenious obſervations of our author in this place.

The manner in which abortion takes place includes the account of its phenomena and ſymptoms. When it happens within three weeks after impregnation, the ſymptoms differ little from thoſe of menorrhagia; there is a copious diſcharge of blood and coagula; but, as the vaſcular ovum has not at this early period deſcended into the uterus, the characteriſtic mark of abortion is wanting; the primary veſſels are ſo ſmall, that they cannot be detected in the diſcharge. But though nothing but coagula can be perceived, the diſcharge, we are told, generally continues till the ſmall veſicle paſſes out of the fallopian tube; then it ſtops, and an oozing of ſerous fluid finiſhes the proceſs. Mr Burns does not inform us how this paſſing of the veſicle out of the fallopian tube has been diſcovered, or may be known, otherwiſe than by the ceſſation of the hæmorrhage. When, indeed, the veſicle has come into the uterus before abortion takes place, it may ſometimes be detected in the firſt diſcharge of blood, at an early period of geſtation. The diſtinguiſhing features of abortion in the more advanced period of geſtation, between the ſecond and third month, are, uterine pain and contraction, diſcharge of blood, of the fœtus and ſecundines.

Theſe ſymptoms, and the various appearances, are accordingly marked and well diſtinguiſhed by Mr Burns. But there are alſo ſome precurſors or ſigns of the ceſſation of the action of geſtation very material for the practitioner to be acquainted with. On this ſubject Mr Burns remarks, "There is generally, for a longer or ſhorter time before the commencement of abortion, a pain and other irregular actions of the neighbouring parts, which give warning of its approach before either diſcharge or contraction take place, unleſs it proceeds from violence; in which caſe the diſcharge may inſtantly appear." We wiſh Mr Burns had been more particular on this ſubject, for there is danger that theſe ſymptoms be confounded with the more chronic ailments that accompany pregnancy. Pain and irregular actions in the neighbouring parts are common at this period in many women, who yet carry well, and go on to their full time. Are there, then, no ſigns which, together with theſe, announce that the fœtus is blighted, that the action of geſtation has ceaſed? We know not why Mr Burns has omitted the ſudden and premature ceſſation of the morning ſickneſs, and ſoftneſs of the mammæ, which, when they do occur with pain and irregular action, are regarded as ſigns that the action of geſtation is over, that the fœtus is blighted, although no more palpable ſigns of abortion may have appeared. The ſtate of the cervix uteri may afford alſo uſeful information.

The cauſes giving riſe to abortion are very fully and ably inveſtigated. Thoſe of accidental abortion are often ſufficiently obvious. But the cauſes of habitual abortion, and of thoſe caſes which are not purely accidental, are involved in much greater obſcurity. A prediſpoſition to abortion in ſome individuals muſt be allowed to exiſt. This prediſpoſition is referred by our author generally to an imperfect mode of uterine action, induced by age, former miſcarriages, and other cauſes, as by an immoderate and indiſcriminate uſe of venery. A change of ſtructure alſo in ſome part of the uterus may render it unfit to continue the action of geſtation, and give riſe to premature expulſion. It is eaſy alſo to conceive how a general weakneſs of the ſyſtem may interfere with the perfect diſcharge of the uterine functions; or the uterus may be affected by ſympathy, with ſome other organ weakened or deranged, and thus lay the foundation of abortion. Thus, the loſs of tone, or diminiſhed action of the ſtomach, produces amenorrhœa, and it may alſo induce abortion. Some important facts, connected with theſe ſympathies, are engrafted by Mr Burns on a particular theory which he had formerly endeavoured to eſtabliſh in his diſſertations on inflammation. The leading principle of this theory ſeems to be, that, when the action of any organ is increaſed, other parts muſt be deprived of a portion of their energy; or, to uſe the author's own words, "We have a certain quantity of action preſent in the ſyſtem at large, and properly diſtributed amongſt the different organs, forming an equilibrium of action; and if one organ act in an over degree, another which is connected with it, will have its action leſſened, and *vice verſa*."

Applying this doctrine (which it is not our buſineſs to examine) to the caſes of abortion under conſideration, Mr Burns obſerves, "There being increaſed action of the uterus in geſtation, requiring an increaſed quantity of energy to ſupport it, we find that the ſyſtem is put, *pro tempore*, into an artificial ſtate, and obliged either to form more energy, which cannot be ſo eaſily done, or to ſpend leſs in ſome other part. Thus the function of nutrition, or the action by which organic matter is depoſited in room of that which is abſorbed, often yields or is leſſened, and the perſon becomes emaciated, or the ſtomach has its action diminiſhed, or the bowels, producing coſtiveneſs and inflation. If no part give way, and no more energy than uſual be formed, geſtation cannot go on, or goes on imperfectly. Hence ſome women have abortion, induced, by being too vigorous; that is to ſay, all the organs perſiſt in keeping up their action in perfection and complete degree." Another ſource of tendency to abortion is found by our author in the too readily yielding of other organs, allowing the uterus to act too eaſily. The inteſtines may yield too eaſily, and, becoming torpid, induce coſtiveneſs; or the muſcular ſyſtem may yield too much, and become enfeebled. Mr Burns conſiders this doctrine to be of much practical importance in directing the means of correcting habitual abortion. "Much attention ſhould be paid to the ſtate of the principal organs of the body; for, if we confine our attention merely to the uterus, we ſhall often fail, when otherwiſe we might ſucceed; and it will be neceſſary to remember that the chain of ſympathies in geſtation is often extenſive and complicated." The ſtate of the ſtomach, for example, may give riſe to headach, toothach, &c. and often it is dangerous to remove theſe remote effects. It throws too much energy to the uterus and may be productive of abortion, as the pulling of a pained tooth ſometimes reſtores the menſes in caſes of obſtruction.

After having fully examined the prediſpoſing cauſes, or thoſe which lay the foundation of habitual abortion, our author proceeds to ſtate and to explain the operation of the various remote or exciting cauſes of abortion. Theſe are ſuch a degree of violence from falls, blows, violent exerciſe, and the like, as may injure the child, and detach the ovum; the death of the fœtus from diſeaſe peculiar to itſelf, or to its placenta; ſtrong paſſions of the mind; ſtimulating, emmenagogue, and purgative medicines; the acceſſion of morbid action or inflammation in any important organ, exemplified in eruptive diſeaſes; mechanical irritations of the os uteri; tapping the ovum, and eſcape of the waters. But for many ingenious obſervations and uſeful remarks, connected with the examination of theſe cauſes, we muſt refer to the work itſelf.

The medical treatment of abortion embraces the means of prevention when anticipated, the method of checking it when immediately threatened, and the proper method of conducting the woman through it, when it cannot be avoided.

On all theſe ſubjects we can promiſe the ſtudent much information, and the practitioner many uſeful hints, from a peruſal of the work of Mr Burns. We ſhall content ourſelves with noticing one or two examples of what appears to us new in the opinions or practice of our author.

"I have already mentioned that abortion is ſometimes the conſequence of too firm action, the different organs refuſing to yield to the uterus, which is thus prevented from enjoying the due quantity of energy and action. Theſe women have none of the diſeaſes of pregnancy, or they have them in a ſlight degree. They have good health at all times, but they either miſcarry, or have labour in the ſixth, ſeventh, or eighth month, the child being dead; or, if they go to the full time, I have often obſerved the child to be ſickly, and of a conſtitution unfitting it for living. We may ſometimes cure this ſtate by giving half a grain of digitalis, and the eighth part of a grain of the tartris antimonii, every night at bed-time, which diminiſhes the ſtomachic action. Bleeding is alſo uſeful, by making the organs more irritable. Exerciſe, ſo as to prove tonic, is hurtful in this ſpecies of abortion; inſtead of wiſhing to increaſe the action of any organ, our object is to diminiſh it, and make the different parts more eaſily acted on."

The digitalis ſeems a favourite remedy with Mr Burns, and is recommended by him under every circumſtance of abortion and flooding, where it is our indication to diminiſh vaſcular or organic action. This doctrine, too, and practice of attending to the ſtate of the ſympathizing organs, and of lowering or raiſing their action, is applied in a variety of caſes. We agree with Mr Burns that the hæmorrhage which attends abortion can do no good, and that, in every caſe, it is our buſineſs to moderate and reſtrain it. The principal means of effecting this is by the application of cold, by plugging the vagina, and by the uſe of digitalis. But we do not altogether ſubſcribe to Mr Burns's proſcription of manual aſſiſtance. We are decidedly of opinion that no violence is to be uſed; but we know that the flooding is often protracted by the retention of the whole or part of the ovum or ſecundines, which it is ſometimes in our power to reach with the finger, and to remove to the great advantage of the patient. We do not recommend any attempt to dilate or force the os uteri in abortions of the earlier months; but, when the flooding is protracted from retention, the practitioner ſhould examine, and, if within the reach of his finger, he may attempt, and will ſometimes eaſily accompliſh, its removal.

While we have much to praiſe in the plan and execution of this treatiſe, we regret to obſerve the careleſs manner in which it has been printed, a circumſtance we muſt attribute to the diſtance of the author from the preſs. Moſt of the typographical errata are noted and corrected; but others have eſcaped notice. There is one error in the doſe of digitalis, page 132, to which we eſpecially requeſt the reader's attention.

The receipt ſhould be thus corrected:

℞ Tinct. Digitalis ʒ iſs.—for ℥ 1ſs.
—— Hyoſciami ʒ i.—for Extract. Hyoſciami.
Emulſ. Camphorat. ℥ iv. miſce.

VII.

An Eſſay on the Effects of Carbonate of Iron upon Cancer, with an Inquiry into the Nature of that Diſeaſe. By RICHARD CARMICHAEL, Member of the Royal College of Surgeons in Ireland, and Surgeon of St George's Hoſpital and Diſpenſary. Dublin, 1806. 8vo. pp. 116.

A REMEDY which promiſes the cure or even the alleviation of ſo formidable and hopeleſs a diſeaſe as cancer, and which is announced under the ſanction of a reſpectable name, cannot fail to intereſt the public. The experience, however, of others muſt determine whether or not Mr Carmichael have been miſtaken in his obſervations. We know that ſome trials, which have been made of the carbonate of iron in his quarter have not been ſucceſsful, and are diſpoſed to doubt of the nature of thoſe caſes which have been cured by Mr Carmichael; indeed, we do not think they have the character of real cancer. Another remark on theſe cures is calculated to inſpire ſtill farther reſerve; we mean the very ſudden relief, and the rapidity with which theſe ulcerations healed under the uſe of the remedy, ſo unlike what we know of the hiſtory and progreſs of cancer. But, that our readers may judge for themſelves, we ſhall quote one of theſe caſes.

" A very young lady, who, in the year 1799, was attacked by this complaint, afforded an uncommon proof of the efficacy of the carbonate of iron. A ſmall pimple firſt appeared at the ſide of the noſe, which, by frequent irritations, degenerated into that ſpecies of ulcer termed *Noli me tangere.* Many experienced practitioners were conſulted, who informed her friends of the inveterate nature of her complaint, and at the ſame time preſcribed cicuta, calomel, arſenical lotions, and the other remedies employed in cancer, but without any beneficial effect.

On the 10th October 1805, in the ſixth year of the progreſs of the diſeaſe, carbonate of iron was firſt applied; at which period the ulcer was irregular, with high-erected edges, and diſcharged a thin ichor, while redneſs and induration extended over the greater part of her noſe, ſo that there were ſerious apprehenſions that the cartilage and bones were engaged in the diſeaſe. But, on the uſe of iron, the pain in a few hours ceaſed, and the application, not having been diſturbed for two days, formed a ſcab, which fell off at the end of that time, leaving the ſore evidently amended, and diſcharging healthy-looking matter. The ruſt was applied daily till the 16th inſtant, when a dry cruſt formed, which dropping off in a few days left the parts completely healed."

Thus this young lady was cured of a diſeaſe in ſix days, which had obſtinately withſtood, for as many years, the moſt powerful remedies heretofore employed in this diſorder. Now, all the caſes related in the text are ſimilar to this. They are all caſes of phagedenic ulceration either in the face or legs. In a poſtſcript, indeed, there are ſome caſes more like to cancer, in which the preparations of iron were employed with good effect. A carcinomatous ulcer of the breaſt was cicatrized, a caſe of ſuppoſed cancer of the womb was relieved, and ſome other more doubtful caſes appear to have received benefit from the remedy.

The connexion between local diſeaſes and the general conſtitution has not eſcaped the obſervation of ſurgeons. Every day's experience muſt convince them how unavailing every ſpecial application is, unleſs the general diſorder of the ſyſtem be at the ſame time corrected. The carbonate of iron, by improving the general health, and invigorating the conſtitution, may contribute to the cicatrization of phagedenic ulcerations. Its ſpecific powers upon cancer we are diſpoſed to doubt. "Sed adhuc ſub judice lis eſt."

The carbonate of iron is employed by Mr Carmichael both externally and internally. It is applied in fine powder to the ſore, ſometimes it is made up into an ointment; and he uſes alſo, as a lotion, the ſolution of the ſulphate of iron, while the carbonate is given in large and repeated doſes internally.

The diſcovery of the preparations of iron, as remedies againſt cancer, was not accidental; and it is curious to obſerve the analogy, however looſe, which will ſometimes lead to the employment of ſomething new. Mr Carmichael maintains, with Dr Adams, the doctrine of the independent life of cancer, and, knowing that iron was effectual in deſtroying inteſtinal worms, it occurred to him that it might be equally deſtructive of other paraſitical animals, and why not of the carcinomatous? The trial was accordingly made, and his ſucceſs more than anſwered his expectations.

Mr Carmichael has beſtowed conſiderable pains on this tract. His obſervations on cancer may be read with advantage. He has made good uſe of the labours of former writers, eſpecially of thoſe of Dr Adams and of Mr Abernethy. Introductory to his own illuſtrations, he engages in a ſhort examination of the opinions of the ancients and moderns concerning cancer;

cancer: an inquiry is then inſtituted into the nature of the diſeaſe, in which the appearances and ſtructure of cancer are explained according to the lateſt obſervations; and this leads to Mr Carmichael's grand object, the evidence of the independent life of cancer.

But although he agrees generally with Dr Adams in attributing to cancer an independent exiſtence, he diſſents from him in ſome particulars. He refuſes to the cyſts deſcribed by Dr Adams, containing a yellow-greeniſh fat, the power of vitality, and conſequently denies the exiſtence of the carcinomatous hydatid. The carcinomatous animal of Mr Carmichael is a kind of zoophite or polypus; for it is to the cartilaginous ſepta, and proceſſes which radiate in every direction amidſt the ſurrounding cellular ſubſtance and glands, that Mr Carmichael attributes an independent vital exiſtence.

"The ſubſtance reſembling ſoftened cartilage, with its cavities and annexed roots, which I conceive alone to form carcinoma, has no connexion, by communicating veſſels, with the parts in which it is imbedded, and ſtrongly reſembles the gelatinous texture of the polypus and other zoophites."

This opinion, our author thinks, is ſtrengthened by ſtriking and concluſive arguments, and the above quotation is placed firſt in the order of arguments, as the moſt in point; for the others are founded chiefly on the vague ſuppoſition, that parts leaſt endowed with life are the moſt favourable to the lodgment and growth of animalcules, and that ſuch parts are chiefly ſubject to carcinoma. We are not ſatisfied that the mammæ, uterus, ovaria, and teſticles, are parts naturally endowed with a ſmall portion of life. But the whole argument founded on this conſideration is too frivolous to merit farther notice.

"The origin of carcinoma firſt commencing in a point, the formation of cyſts in its texture containing a fluid, thoſe cyſts evincing a contractile power, by a forcible expulſion of their contents on being punctured, and the peculiar pain of this diſeaſe, are all circumſtances which ſtrongly impreſs the idea that carcinoma is poſſeſſed of individual life." It is ſomewhat ſingular, and rather unfortunate, that the cyſts containing a fluid, and *their contractile power*, ſhould be here brought forward by Mr Carmichael as an argument for the individual life of carcinoma, after having, in another place, deſtroyed its whole force, by refuſing vitality and independent exiſtence to this portion of carcinoma.

"But theſe appearances ſeem to be merely the effect of the deranged actions of the animal economy, except the one evincing a contractile power in what he terms capſules, but which, notwithſtanding repeated inveſtigation, I never could perceive."—P. 42.

But the cyſts of which Mr C. now ſpeaks are probably the larger cavities of the cartilaginous ſubſtance which conſtitutes his carcinomatous zoophyte; and theſe cavities, when opened, ſpurt out their contained fluid with more force, it ſeems to Mr C., than the ſimple elaſticity of the part is capable of effecting. Upon the whole, it appears to us that the proofs of the independent vitality of cancer are woefully deficient. We are at moſt diſpoſed to regard it as an ingenious though fanciful hypotheſis. Yet Mr C. is ſo perſuaded of its truth that, although Mr Nooth might inoculate himſelf with impunity with the matter of cancer, he would not anſwer for the conſequences, had he *engrafted* the ſame limb with a *ſlip* of the cartilaginous ſubſtance of carcinoma.

In ſpeaking of the treatment of cancer, our author takes a view of the principal remedies, palliative as well as efficient, which have been employed; and theſe, he is of opinion, afford a further preſumption of the independent life of cancer. Even the preparations of iron appear to have been employed as efficient remedies in cancer by others. Fabricius recommends a rude form of that medicine, the powder collected from grinding-ſtones upon which iron inſtruments have been ſharpened; Mr Pouteau, a ſolution of the metal in a mineral acid; and Mr Juſtamond, the flores martiales. Iron, then, is concluded to act as poiſon to the carcinomatous zoophite. Mr Carmichael thinks, from ſome coarſe experiments he has made on white-blooded animals, that the carbonate and oxydes of iron are deſtructive to their lives. "It is obſervable that cancers, hydatids, tæniæ, worms, and other extraneous bodies, that are more or leſs endowed with the principle of vitality, and whoſe life is deſtroyed by the preparations of iron, are altogether void of red blood, but that on other animals, whoſe blood is red, it never acts as a poiſon."

PART III.

MEDICAL INTELLIGENCE.

Some Account of the "Medical Topography of Berlin," with a Liſt of Diſeaſes at the Public Hoſpital in that place.

BERLIN, the capital of Pruſſia, is ſituated in a wide ſandy plain on the banks of the river *Spree*, 52° 30° north lat. and 31° 10 long.—The ſurrounding country is quite flat, interrupted by no hills and no woods, except a little riſing-ground and a few plantations, chiefly of fir-trees, in the neighbourhood of the town. During the continuance of warm weather, the duſt is exceedingly troubleſome, in conſequence of the ſoil being ſo very light and ſandy. There are no regularly prevailing winds: the moſt common are ſouth-weſt, weſt, and north-weſt; eaſt and ſouth-eaſt ſeldom blow, and only in ſtationary warm weather. In general, the eaſt wind brings dry weather, and the weſt wind uſhers in wet weather. Weſt winds prevail moſt, and theſe are ſaid to purify the atmoſphere more than any other gales. The ſeaſons vary in different years, as in other places. In the ſpring, there is commonly froſt, ſnow, and rain: ſometimes, however, clear warm days prevail in the month of March, but theſe do not continue long without being followed by cold and rain. Not more than from 65 to 70 clear days can be reckoned in the whole year upon an average, and perfectly clear days, when not a cloud can be ſeen in the ſky, are very rare; they do not amount to more than two or three in a year; ſometimes a greater number of ſuch days are perceived, from 15 to 18 in particular ſeaſons. Thunder-ſtorms are frequent, but ſeldom violent. The quantity of rain and vapour that falls in twelve months may be reckoned, on an average, as equal to $19\frac{3}{4}$ inches. In London it amounts to $18\frac{1}{2}$, in Paris 17, in Peterſburgh $20\frac{11}{12}$, at Abo $23\frac{3}{4}$.—The average height of the barometer at Berlin is 27 inches; the thermometer uſually riſes to 92 deg. Fahrenheit in the month of July, and falls to 16 deg. in January. Changes in the weather are very common; indeed, it ſeldom continues long the ſame; the viciſſitudes are ſudden, cold evenings generally ſucceed to hot days, ſo that the thermometer riſes or falls ten or twelve degrees in the ſpace of a few hours. The air ſeldom continues dry for any length of time; both in ſummer and winter it is oftener moiſt, and, on that account, not remarkable for its ſalubrity.

The principal hoſpital for the reception of the ſick poor is called "*La Maiſon de Charité.*" It is a large handſome building, three ſtories high, containing about twelve hundred beds for three claſſes of patients, which are ſeparated into three diviſions: *1ſt*, The Medical and ſurgical caſes; 2*d*, The lunatics; 3*d*, Lying-in women and their children. The lunatics have been placed at this hoſpital ſince the houſe, in which they were confined, was deſtroyed by fire in 1798. The funds for the ſupport of this eſtabliſhment are derived partly from ſome lands belonging to the charity, partly from the intereſt of ſome monied capital, and partly from an annual gift preſented by the King. In conſequence of the numerous applications for admiſſion, and the inadequate ſtate of the funds to meet fully the yearly expences, the wards are at this time too much crowded with patients, and there is not ſuch cleanlineſs and internal accommodation as the managers wiſh, and propriety and good order demand. Two ſurgeons reſide in the hoſpital as penſioners; beſides, an army ſurgeon, and nine other ſurgeons, take charge of the patients, under the inſpection of two phyſicians and a ſurgeon-major. The celebrated *Hufeland* is ſuperintendant of the hoſpital and the different departments, and *Dr Fritze* reſides as phyſician in ordinary at the inſtitution. Medicines are furniſhed *gratis* by the apothecary of the court, and all the other charitable inſtitutions are ſupplied in the ſame manner. Pupils in the different branches of the medical art are admitted to attend the patients, and aſſiſt at operations. There is a clinical eſtabliſhment attached to the hoſpital, and every perſon who graduates at any univerſity, and wiſhes to ſettle as phyſician in the Pruſſian dominions, is obliged, by ſome late regulations, to attend the clinical wards at Berlin, and to take two or three patients under his care, and examine and treat them in preſence of the principal phyſician, before he can be admitted to paſs his examination for a licence to practiſe. In addition to the ordinary clinical ſchool, there is a ſchool for ſtudying midwifery, and women are regularly inſtructed in the principles and practice of this art. The variety and the proportion of the moſt prevalent diſorders will beſt be ſeen by a reference to the following liſt, which may be looked upon as a ſummary of the diſeaſes admitted into the hoſpital during a period of four years.

Account of Diſeaſes at " La Charité," *from January* 1801 *to December* 1804.

	NUMBER OF CASES.			
	A. D. 1801.	A. D. 1802.	A. D. 1803.	A. D. 1804.
Inflammatory Fever, -	1	8	5	—
Nervous and malignant Fever,	154	323	364	320
Hectic Fever, - -	61	51	93	45
Catarrhal Fever, -	40	16	22	94
Simple mild Fever, -	60	11	—	3
Intermittent Fever, -	30	39	53	164
Inflammation of the Lungs,	26	10	48	77
Rheumatiſm, -	97	30	24	101
Inflammation of the Kidneys,	1	—	—	—
Small-Pox, -	1	—	1	—
Scarlet Fever, -	17	17	35	10

	NUMBER OF CASES.			
	1801.	1802.	1803.	1804.
Hyſteria and Hypochondriaſis,	17	—	6	14
Mental Derangement,	179	200	238	200
Paralyſis, - -	28	20	10	26
Suffocation, -	10	3	6	3
Colic, - -	6	27	11	4
Poiſon of Lead, -	21	4	7	37
General Debility, -	117	112	91	105
Pain in the Stomach,	9	4	8	17
Epilepſy, - -	24	30	27	9
Spaſm and Convulſions,	16	23	16	26
Triſmus, - -	2	—	—	3
Apoplexy, -	4	13	16	8
Spitting of Blood, -	8	10	12	15
Hæmorrhoids, -	10	2	1	6
Suppreſſed Menſtruation,	4	—	—	—
Obſtruction in the Inteſtines,	14	4	4	8
Chronic Diarrhœa, -	24	16	30	12
Dyſentery, -	6	—	—	10
Iliac Paſſion, -	1	1	2	3
Indigeſtion, - -	3	1	4	5
Chronic Catarrh,	61	29	31	29
Pulmonary Conſumption,	169	173	278	225
Gout, - -	53	86	142	56
Aſthma, -	4	22	13	18
Suppreſſion of Urine,	3	3	11	9
Obſtructions in the Urethra,	4	5	3	3
Itch, - -	806	277	884	831
Lues Venerea, -	687	680	623	626
Dropſy, - -	58	45	43	75
Cachexia, - -	16	13	1	7
Jaundice, - -	7	4	6	6
Tabes, - -	4	12	4	5
Debility from old Age,	61	104	66	76
External Diſeaſes.				
Inflammation, -	44	53	75	—
Tumour, - - -	50	59	70	—
Aneuriſm, - -	1	—	1	—
Hydrocele, - -	7	6	9	—
Cataract, -	5	7	3	—
Specks on the Cornea,	4	6	4	—
Ulcers, - -	297	384	466	—
Fiſtula, - - -	11	4	15	—
Wounds, - -	12	16	30	—
Fractures and Contuſions,	38	50	59	—
Diſlocations, -	11	4	5	—
Rupture, - -	9	17	9	—
Amauroſis, -	9	6	7	—
Caries Oſſium, -	25	15	35	—

The tables, from which theſe reſults are extracted, give a minute detail of the number of patients admitted each month of the year, with each particular diſeaſe mentioned in the liſt, and ſhow how many are cured, how many died, and how many are diſmiſſed incurable, or ſent to other charitable inſtitutions. There ſeems every reaſon to believe theſe accounts accurate and authentic, becauſe the liſts are made out every month, and eſpecially becauſe moſt of the patients are ſubmitted to clinical lectures and clinical practice. The number of patients admitted in the year 1801 amounted to 4726. Of theſe 3150 were cured, 472 died, and 294 were diſmiſſed without being cured, or remitted to other inſtitutions. The proportion of deaths in the whole of this number is as 1 to 10, which is by no means conſiderable, when it is known that many patients are brought to hoſpitals in a dying ſtate, and expire a few hours after their admiſſion. By comparing the reports of other medical inſtitutions, which are well known, the mortality is leſs at Berlin than elſewhere. In the general hoſpital at Vienna, the number of deaths, compared with the whole number of patients admitted during the year was as 1 to $9\frac{2}{3}$. In Frederick's Hoſpital at Copenhagen, the average proportion of deaths, during five years, was as 1 to 10. What a ſtriking difference theſe reports furniſh, when compared with the ſame and other ſimilar inſtitutions in former times! On comparing particular diſeaſes, the number of deaths is found to be conſiderably leſs in ſome than in others; as, for inſtance, in nervous and malignant fevers, and, on the contrary, in conſumption and dropſy. Of 154 caſes of typhus fever, 25 died; and the greateſt part of the patients, at leaſt one-third of the whole number, are carried off by pulmonary conſumption. Malignant and contagious fever is very rare in the hoſpital at Berlin. The reſident phyſician, Dr Fritze, has only ſeen a fever of this ſort once during the eight years of his being there, and theſe caſes occurred in the wards ſet apart for patients with the itch. The caſes put down under the claſs of fevers are comparatively ſmall, when we conſider that this hoſpital is a general houſe of reception for the paupers among a population of 160,000 perſons; and the nervous fevers are in general leſs violent and leſs dangerous than what are obſerved in large towns in this country. Dropſy and dyſpeptic complaints are ſmall in number, when compared with the reports of hoſpitals and diſpenſaries in England, Scotland, and Ireland. This difference points out ſome ſtriking peculiarity in the phyſical habits of the lower orders of ſociety. The general ſobriety and abſtinence from the abuſe of ſpirituous liquors may account for this circumſtance. Another ſingular variety is the ſcarcity of diſeaſes of the kidneys and urinary organs. Gravel and ſtone in the bladder occur ſo ſeldom, that no diviſion is even allotted to ſuch complaints in the long liſt of human infirmities. The hiſtory of mental diſorders affords ſome curious reſults; under the general title of *Mental Derangement (Gemüthſkranken)* are placed all patients affected with melancholia, mania, and fatuitas, and they form a very numerous claſs. The proportion of men to women is as 104 to 56, nearly double the number of males to that of females; and this exceſs is obſerved to increaſe in the increaſing numbers of this claſs of diſeaſes for ſeveral years paſt. What can be the cauſe of ſuch a difference? Does it depend upon any difference or any change in the moral and phyſical habits of the female ſex? Is it the ſame in other inſtitutions for lunatics? Farther inquiries would throw light on theſe queſtions. Out of 334 caſes of mental derangement 105 were cured, the third part, certainly a great proportion, and more worthy attention, as, it is ſaid, this ſucceſsful treatment was owing to very ſimple means, viz. the external application of cold water. The greateſt number of patients admitted was in the months of January, February, March, and July, and the ſmalleſt number in June. Nervous fevers were more frequent in May, and leſs ſo in October and November. Rheumatiſm moſt common in July, and the greateſt number of mental diſorders appeared in June; at leaſt, ſuch was the ſtate of the admiſſions in 1801. It ſeems probable, *cancer* and *ſchirrus* are claſſed under the heads *tumour* and *ulcers*, becauſe both theſe diſorders are very frequent on the continent, and, of late years, more common than formerly, eſpecially *cancer uteri*. What can be the reaſon for the frequent occurrence of ſuch a formidable malady? Intermittent fevers were unuſually frequent in April, May, and June, in 1804, owing to the cold wet ſpring and ſummer. Many trials were made with gelatin, which cured them, and the reſult of theſe experiments will be given to the public.

On the Treatment of Hooping-Cough.

WE are informed that a paper has been preſented to the Medical and Chirurgical Society of London, by Dr RICHARD PEARSON, on the treatment of the hooping-cough. After bearing teſtimony to the advantages to be derived from a reſtricted uſe of emetics, he ſtates that he has failed of ſucceſs when he has attempted to cure this diſorder by vomiting-medicines alone, agreeably to the directions of Dr Fothergill; he has, therefore, had recourſe to other meaſures. After bringing away the phlegm by an antimonial emetic, he preſcribes a medicine compounded of opium, ipecacuanha, and prepared natron, (carbonate of ſoda). To a child a twelvemonth old, he gives one drop of tinct. of opium, five drops of ipecacuanha wine, and two grains of prepared natron, made into a ſmall draught with ſyrup and water, and repeated every fourth hour. This medicine appears to have an antiſpaſmodic and diaphoretic operation. When, by its uſe for ſome days, the hooping-cough paroxyſms are rendered leſs violent and leſs frequent, he directs the ipecacuanha to be omitted, and the gum myrrh, in ſufficient doſes, to be ſubſtituted in its place; the proportions of opiate tincture and alkaline ſalt remaining the ſame. The myrrh is uſed not as an expectorant, but as a tonic; as ſuch, he has found it preferable in this diſorder, eſpecially where the patients are very young, to the Peruvian bark. On what principle the alkaline ſalt acts, he does not pretend to explain; but he aſſerts that the ſame beneficial effects are not produced by the opium and ipecacuanha, or opium and myrrh, when it is left out. He adds, that coſtiveneſs is to be prevented, during the uſe of theſe medicines, by proper doſes of calomel and rhubarb.

Extracts from Letters from Mr Wilkinſon, on the Decompoſition of Water by Galvaniſm.

Since I had the pleaſure of ſeeing you at Edinburgh, the celebrated experiments of Pacchioni have excited our attention, repeated with every poſſible care as to the water being diſtilled and freed from every impurity, and after having decompoſed as much as to produce me 18 cubic inches of gas; yet I have not diſcovered the leaſt trace of muriatic acid, nor does the ſoda, as mentioned by Mr Peele appear, if the decompoſition be effected in veſſels when no ſoda enters into their compoſition.

Dublin, 11*th June,* 1806.

The Experiments of Pacchioni and Mr Peele.

You have requeſted me to ſtate to you what experiments I have made relative to the experiments of Pacchioni and Mr Peele. From my reſults, I am perſuaded, theſe gentlemen muſt have fallen into ſome error. Mr Peele ſays, he reduced 16 ounces of water to ſix ounces, by the decompoſing power of Galvaniſm, and diſcovered muriatic acid in the reſidual water. Accuſtomed as I am to Galvanic experiments on a large ſcale, yet I cannot comprehend what power muſt have been employed to have decompoſed ſo much water. I find 600 plates in 30 hours will not decompoſe more than two drachms. Hence ſuch an apparatus, even acting with conſiderable force, would require seven weeks to decompoſe ſuch a quantity. If ſo long a time was devoted to it, there would be a greater probability of muriatic acid being abſorbed by the water from various ſources. At Dublin, I procured from Dr Barker, chemical lecturer at the Univerſity, ſome diſtilled water. Muriate of barytes, and nitrate of ſilver, had been introduced into ſeparate portions, to prove that no ſulphuric acid were preſent in any form. After decompoſing two drachms, a ſolution of nitrate of ſilver gave to the reſidual water a white cloudy appearance, or evinced the appearance of muriatic acid. Since then I repeated the experiment with my apparatus ſo arranged as to prevent any abſorption whatever. With theſe precautions no diſcoloration took place. I am perſuaded, that, in the firſt experiment, the error aroſe from the muriatic acid entering into the compoſition of the acid employed for Galvanic experiments.

Cork, 28*th March,* 1806.

The Medical Committee of the Society for Investigating the Nature and Cure of Cancer, conſiſting of Drs Baillie, Sims, and Willan; Meſſ. Sharpe, Home, Pearſon, and Abernethy, and Dr Denman, Secretary, circulated in 1802 a ſet of Queries for obtaining information regarding theſe. Since that time they have been republiſhed, with Obſervations explanatory of their object. In reprinting a *Brochure* of ſo much intrinſic value, we hope both to preſerve it, and to forward the views of ſo laudable an Inſtitution.

Every perſon muſt be ſenſible of the various difficulties attending the eſtabliſhment of a new inſtitution, and of the much greater and more numerous difficulties which beſet our firſt ſteps in the acquiſition of knowledge on a ſubject of which, it may be ſaid, we are even at this time totally ignorant *. But, in order to form a baſis of inquiry, in which the nature and cure of cancer, it is preſumed, may be purſued with all the advantages of reaſon and experience, the Medical Committee very early drew out and diſtributed the following queries, for the conſideration not only of the correſponding members, but of all medical men, to whom opportunities of anſwering them might, by ſtudy or by accident, occur. A ſatisfactory anſwer to any one of theſe queries would, in itſelf, be of great importance, and might probably lead to an explanation of others. It is therefore earneſtly requeſted, if any new obſervation or diſcovery reſpecting cancer ſhould be made, that it may be communicated to the ſecretary of this inſtitution; and, if any progreſs in the inveſtigation of the nature and cure of cancer be made by or imparted to them, it will, without delay, be laid before the public by the Medical Committee. It may be neceſſary to obſerve that the promoters of this inſtitution have never entertained the idea of creating the jealouſy, or of interfering with the intereſts, of thoſe who are engaged in inſtitutions of a ſimilar kind; their intention being ſolely that of co-operating in the laudable endeavour to leſſen the maſs of human miſery, by calling for the aſſiſtance of others, and by exerting themſelves to obtain a remedy for a moſt painful and dreadful diſeaſe, againſt which all the medicines and methods of treatment hitherto propoſed and tried have been unavailing.

The queries above-mentioned are expreſſed in as plain terms as the nature of the ſubject would allow; but it has been thought that ſome benefit would accrue from a ſhort comment or explanation of the aim and purport of each query in the following manner:

Query 1ſt.—*What are the diagnoſtic ſigns of cancer?*

It is very much to be wiſhed that we had an exact definition of cancer, thoſe of the noſologiſts being very imperfect and inſufficient. It has accordingly happened that a diſeaſe, which has been denominated cancer by one medical man, has not been allowed to be ſuch by another; and painful and hazardous operations have been performed by ſome, which were not thought neceſſary, or likely to be ſucceſsful, by others. Hence an opening has alſo been made for falſe pretenſions and impoſitions; and, though no perſon converſant in practice thinks that a true genuine cancer was ever cured, there is an abundance of caſes in which cures of this diſeaſe are aſſerted with the greateſt confidence. If a juſt and exact definition of cancer cannot yet be formed, we muſt be ſatisfied with ſuch a deſcription as a correct hiſtory of the diſeaſe will afford. This, it appears, has never yet been judiciouſly and accurately done; though it would probably enable us to diſcriminate the various forms of the diſeaſe, and its diſtinction from other diſeaſes. Till, therefore, a preciſe definition, or a competent deſcription be formed, it will be incumbent on us to mark all the ſymptoms peculiar and incident to cancer, and the order in which they ariſe, together with the varieties of this and ſimilar diſeaſes, and the effects of the medicines which may be tried under all the different circumſtances, that we may be able to ſay ſomething more ſatisfactory than that it ſeems to us to be cancer; or that it is cancer, becauſe it is an indurated, painful, and unequally enlarged gland, terminating in ulceration; or that every ulcer, in certain parts, which reſiſts the common modes of treatment, or methods of practice, is to be regarded as cancerous. It is much to be wiſhed that we may no longer be deceived by ambiguous words and phraſes, or conſider them as conveying to us any eſſential or practical knowledge.

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* *It is ſcarcely neceſſary, in this place, to refer the reader to an excellent Treatiſe on Cancer,* by Mr Pearſon, ſurgeon of the Lock Hoſpital.

QUERY 2d.---*Does any alteration in the ſtructure of a part take place, preceding that more obvious change which is called cancer; and if there be an alteration, what is its nature?*

It might firſt be aſked, Does any diſpoſition to cancer in any part take place previouſly to any phyſical alteration or change of ſtructure in the part? or are there any ſymptoms, local or conſtitutional, which denote that cancer is about to be formed? Then we may conſider how the firſt alteration in the ſtructure of a part diſpoſed to become cancerous is to be diſtinguiſhed from the ſtructure of a part perfectly ſound and healthy, or from the ſtructure of parts diſpoſed to other diſeaſes. To ſuch queſtions it might be anſwered, by the aſpect; by the touch; by diſſection; by corroſion of parts; by maceration; by boiling, or otherwiſe ſubjecting them to the operation of fire; by a chemical analyſis of the component parts; by putrefaction; and by all the various methods uſed to detect the ſtructure and other qualities of any part generally, or of its diſtinct component parts. Nor ſhould this inveſtigation ceaſe with the beginning diſeaſe, but it ought to be conducted through the different ſtages; and this ſubject is now ſo open, both with regard to experiment and to the correction of what has been before ſaid and done, that it is ſcarcely poſſible for any one to employ their thoughts upon it without improvement.

One great conſequence of obtaining an anſwer to this query would be, that though we are unable to cure cancer in an advanced ſtage, we might extinguiſh the diſpoſition to it, or ſuppreſs it completely in an early ſtage, whether the diſpoſition or the progreſs conſiſt in increaſed or new action of a part, or in a change of ſtructure.

Some pains have been taken to diſcover, by the properties of the diſcharge from cancer, the nature of the diſeaſe. Through a long ſeries of writers, from the time of Galen, *atrabilis* was conſidered as the cauſe of cancer; ſome thinking that it was of an acid, and others that it was of an alkaline quality; and thoſe of each perſuaſion have attempted to cure the diſeaſe by oppoſite remedies and applications, with different effects. perhaps, but eventually with the ſame termination. It is not, however, yet aſcertained that the diſcharge from cancer is different from ſimilar diſcharges, whether ſerous, ſanious, or purulent, made from parts affected with totally different diſeaſes.

QUERY 3d.---*Is cancer always an original and primary diſeaſe; or may other diſeaſes degenerate into cancer?*

This is a queſtion which has been very much diſputed; at leaſt there have been many different opinions concerning it. It does not imply that all the changes which take place from the commencement of the ſame diſeaſe, through its progreſs to the time when it is acknowledged to be indubitably a diſeaſe of a certain kind, ſhould bear an exact or cloſe reſemblance: but it relates to the abſolute change in the eſſence of one diſeaſe to that of another, with which it had originally no reſemblance or affinity. We muſt, therefore, leave this query to be determined by future experience and obſervation; and if the latter clauſe of it ſhould unexpectedly be decided in the affirmative, we muſt then inquire what kind of diſeaſe, and under what circumſtances of the part, or of the conſtitution, there exiſts ſuch aptitude to degenerate into cancer.

QUERY 4th.---*Are there any proofs of cancer being an hereditary diſeaſe?*

Whether cancer or any other diſeaſe be, ſtrictly ſpeaking, hereditary, has, like many other opinions, been poſitively aſſerted, and as poſitively denied. Whether children born of cancerous parents be more liable to cancer than others, from any ſtructure or organization of the body, or any rooted principle of the conſtitution, may, by attentive obſervation, be diſcovered; and, if it ſhould be ſo proved, we might be led to the prevention of cancer by medicine, by well-regulated diet, or a circumſpect manner of education, and of living. If it be proved, on the contrary, that cancer is not hereditary, the minds of many would be relieved from the diſtreſs of perpetual apprehenſion.

QUERY 5th.—*Are there any proofs of cancer being a contagious diſeaſe?*

This query certainly requires ſome explanation. Does it imply a poſſibility of cance being conveyed from one perſon to another by the breath, as in the hooping-cough, and, as ſome have ſuſpected, in conſumption? or by effluvia exhaled from a body afflicted with this diſeaſe, as in infectious fevers? or, by the breath paſſing over an ulcerated ſurface, as in cancer of the mouth or lip? The opinion of cancer being contagious having been advanced, it is become neceſſary to diſcuſs it, as far as we can, by obſervation, by experiments, and by caſual occurrences. Now we are endeavouring to collect all the *incidentia cancro*, the moſt apparently trifling fact, if duly authenticated, ſhould not be ſuffered to paſs without notice, as it may direct us to the knowledge of things of great importance.

QUERY 6th.—*Is there any well-marked relation between cancer and other diſeaſes? If there be, what are thoſe diſeaſes to which it bears the neareſt reſemblance in its origin, progreſs, and termination?*

Whether there be any relation or affinity between cancer and other diſeaſes acknowledged not to be cancerous, as is the caſe with all unproved aſſertions, has been by ſome affirmed, and by others denied. The ſecond part of this query is equally unſupported and maintained. Some have been aſſured of the affinity between cancer and ſcrophula, and others of that between cancer and ſyphylis: but neither of theſe opinions have been proved or well ſupported by a juſt ſtatement of facts, by regular induction, nor by any collateral circumſtance accompanying methods of cure, or the uſe of any particular medicine. Many of the terms given to diſeaſe by the ancients ſeem not to have been preciſely uſed; yet they made ſome diſtinctions of ſimilar diſeaſes, with which few people at the preſent time ſeem to be exactly acquainted. For inſtance, by Cancer, or Carcinoma, they meant a ſpreading ulceration of a ſchirrous tumour; by the term Lupus, an inveterate and corroding ulcer; and, by *Noli me tangere*, probably they meant to denote in general what the words imply; tumours, which, while they remained eaſy and at reſt, ſhould not be diſturbed. They gave alſo names according to the part affected, but without any difference in the nature of the diſeaſe. But more particular inquiry ſhould be made on this part of our ſubject; for Mr Home has given a very intereſting account of his having removed large portions of the tongue, in diſeaſes of that part, which were allowed to be cancerous. Is it proved that cancer of the breaſt is exactly the ſame diſeaſe as cancer of the tongue, or that of the uterus? or that, in every caſe of cancer, in any part, the ſame method of treatment will be proper? The diſtinction of ſimilar diſeaſes is very neceſſary, becauſe medicines, which may be of ſervice in one of theſe, may be injurious in another. Let us hope that, when preciſe diſtinctions are made between cancer and reſembling diſeaſes, and between the various kinds of cancer, appropriate and efficacious methods of treatment of each diſeaſe will follow, to the great benefit and relief of the afflicted, and to the credit of the profeſſion.

Mr Hey of Leeds, in a late publication, has given an account of a new or hitherto imperfectly deſcribed diſeaſe, which he calls *Fungus Hæmatodes*, which, as it is incurable, we have no better way of claſſing than as a ſpecies of cancer.

Now we are ſpeaking of the terms uſed by the ancients, it will not be amiſs to obſerve that, from the time of Galen to the preſent, there ſeems to have been little or no difference between the medicines given, and the applications uſed, for the cure or relief of cancer.

QUERY 7th.---*May cancer be regarded at any period, or under any circumſtances, merely as a local diſeaſe? Or does the exiſtence of cancer in one part afford a preſumption that there is a tendency to a ſimilar morbid alteration in other parts of the animal ſyſtem?*

An anſwer to this query would be highly important, as it is the *experimentum crucis* of many operations which have been performed for the extirpation of cancerous parts. In cancer of one part, perhaps, all ſimilar and ſympathizing parts may be affected; perhaps the whole conſtitution. A ſurgeon, who is ſaid to have great ſkill and ſucceſs in removing cancerous breaſts, has ſaid, that in many truly cancerous affections of that part, he had found, on examination, that the uterus exhibited marks of the ſame diſease, and that the ſtate of the uterus was his guide in determining him to extirpate or to avoid operating upon diſeaſed breaſts. If the uterus was diſcovered to be affected, he refuſed to perform the operation, having conſtantly found it unſucceſsful under ſuch circumſtances; yet it does not follow that all extirpations of the breaſt will be ſucceſsful, if the *uterus* be free from diſeaſe. When operations fail to remove the whole diſeaſe, which is in ſome caſes impracticable, the ſufferings of the patients are aggravated, and their lives ſhortened, by operations; of courſe they ought not then to be performed. Tumours in the breaſt, of a conſiderable ſize, will often remain in a quieſcent ſtate for many years, even to the cloſe of life, if not diſturbed by injudicious treatment or extraneous injuries, of which the ancients were well aware. It therefore appears as improper to extirpate theſe as it does to ſuffer them to remain, when they begin to be diſturbed, and can be wholly removed. It appears that more caution than has been uſually exerciſed ſeems neceſſary in theſe operations. It is alſo requiſite to decide, by repeated trials, whether the extirpation of cancerous breaſts by the knife or cauſtic be preferable, as far as relates to the operation, or a proſpect of a return of the diſeaſe. In practice, we muſt diſtinguiſh between the extirpation of a diſeaſed part and the cure of the diſeaſe; the latter of which is the object of theſe queries, as many parts which do not admit of extirpation are liable to cancer. Certainly many breaſts, which were not cancerous, have been extirpated by a painful operation, often through the want of ſome criterion of cancer, and ſometimes, it is feared, from motives of ſelf-intereſt, or a cupidity to acquire undeſerved reputation. It is worthy of obſervation *to determine* whether any cancerous ſore in the breaſt, or any other part, had ever more than one opening, and whether external injuries ever give riſe to cancer, or merely aggravate and put in action a diſeaſe which before exiſted. In the *Lock Hoſpital*, there is at this time a caſe of cancer of the *penis*, apparently occaſioned by external injury alone. The ſame fact has been often aſſerted in cancer of the breaſt.

QUERY 8th.—*Has climate or local ſituation any influence in rendering the human conſtitution more or leſs liable to cancer, under any form, or in any part?*

There is a conſiderable variety in the diſeaſes to which human beings are liable in hot and cold climates, and in damp or dry ſituations, or in thoſe which are low or expoſed. The *Goitre* has not been found, or very rarely, in warm and flat countries, nor the *Yaws* in cold ones. The *Lepra*, of every kind, is infinitely more frequent in ſome countries than in others, and more virulent. With regard to cancer, it is not only neceſſary to obſerve the effects of climate and local ſituation, but to extend our views to different employments, as thoſe in various metals and manufactures; in mines and collieries; in the army and navy; in thoſe who lead ſedentary or active lives; in the married or ſingle; in the different ſexes, and many other circumſtances. Should it be proved that women are more ſubject to cancer than men, we may then inquire whether married women are more liable to have the *uterus* or breaſts affected; thoſe who have had children or not; thoſe who have ſuckled, or thoſe who did not; and the ſame obſervations may be made of the ſingle. The cancer to which chimney-ſweepers are ſubject is known, but not accurately underſtood; and none but fruitleſs obſervations have yet been made upon it, except ſuch as relate to operations.

QUERY 9th.—*Is there any particular temperament of body more liable to be affected with cancer than others? If there be, what is the nature of that temperament?*

The word *temperament* has been often uſed by medical writers without any preciſe meaning. It is here meant to ſignify any native or acquired habit of body, which may diſpoſe to or reſiſt the influence of cancer. Should this query be anſwered in the affirmative, having diſcovered the temperament moſt liable to cancer, we might be led to the prevention of this diſeaſe, as was before obſerved under query the 4th.

QUERY 10th.—*Are brute creatures ſubject to any diſeaſe reſembling cancer in the human body?*

It is not at preſent known whether brute creatures are ſubject to cancer, though ſome of their diſeaſes have a very ſuſpicious appearance. When this queſtion is decided, we may inquire what claſs of animals is chiefly ſubject to cancer; the wild or the domeſticated; the carnivorous or the graminivorous; thoſe which do, or thoſe which do not chew the cud. This inveſtigation may lead to much philoſophical amuſement and uſeful information; particularly it may teach us how far the prevalence or frequency of cancer may depend upon the manners and habits of life. As eſtabliſhments are now formed for the reception of ſeveral kinds of animals, and as the treatment of their diſeaſes has at length fallen under the care of ſcientific men, it is hoped that the information here required may be readily obtained. If animals which live only on herbs, and never drink any other liquid than water, prove to be the leaſt or not at all ſubject to cancer, ſuch proof may, in many caſes, become a guide in practice.

Trees and other vegetables are ſubject to diſeaſes which in time deſtroy them, if not remedied by art. They are alſo ſubject to injuries from external cauſes. In both theſe caſes, the conſtitutional powers of the plant are exerted as evidently for its preſervation, and for repairing its injuries, as in animal bodies, and in a manner not unlike what has been obſerved in animals, under the ſame circumſtances.

QUERY 11th.---*Is there any period of life abſolutely exempt from the attack of this diſeaſe?*

With regard to the periods of life when human beings are moſt or at all liable to cancer, it ſeems to be generally admitted to be moſt frequent in old or advanced in age; but this is not ſatisfactorily proved. Nor is it certainly known what is the earlieſt period of life at which cancer has been obſerved to take place; though no caſe of that diſeaſe has yet been noticed before twenty years of age; at leaſt not before the time of puberty, when the parts, moſt frequently affected with cancer, undergo a great and conſpicuous change; ſo that ſome connexion may poſſibly be obſerved between puberty and this diſeaſe. The ſame may alſo perhaps be obſerved at the time of the final ceſſation of the menſes. Among large bodies of children collected together in charity and other ſchools, or of adults in hoſpitals, in convents, and in monaſteries, opportunities of anſwering this query muſt certainly occur. There is, however, at this time, a young woman in the inſtitution with cancer of the tongue. She is in the eighteenth year of her age, full grown, but has never menſtruated. She never had any glandular or ſcrophulous complaint, but was a very healthy girl, till about ten months ago, when a ſlight ulceration appeared on the left ſide and near the middle of her tongue, which is in great part, at this time, deſtroyed. Her teeth are of a jet black colour. Though ſhe muſt of neceſſity ſwallow conſiderable quantities of purulent matter from the ulcerated cancer, her health is, in all other reſpects, perfectly good.

QUERY 12th.---*Are the lymphatic glands ever affected primarily in this diſeaſe?*

This query goes to the very root of inquiry with reſpect to cancer, which has been hitherto ſaid always to originate in the glandular ſyſtem, without diſtinguiſhing, however, the particular ſet of glands. In cancerous affections of the eye, it is believed that the ball of the eye is not primarily affected, but the lachrymal gland. In cancers of the breaſt, the lymphatic glands appear to be affected only in a ſecondary way, when the diſeaſe is making progreſs. It is probable that careful attention to the objects of this query would lead to many new obſervations reſpecting the firſt ſeat, cauſe, and effect of cancer.

QUERY 13th.---*Is Cancer, under any circumſtances, ſuſceptible of a natural cure?*

Many diſeaſes and accidents, to which the human body is liable, are cured or repaired by ſome proceſs of the conſtitution peculiarly and admirably adapted to the kind of diſeaſe or accident. The principle of this proceſs, or the proceſs itſelf, has uſually been expreſſed by the term Nature, and, in medical language, more frequently *Vis Medicatrix*. But no inſtance has ever occurred, or been recorded, of cancer being cured by any natural proceſs of the conſtitution. It is not, however, unlikely that the enlargement of a part containing the *corculum*, or firſt principle of cancer, may be in conſequence of a proceſs ſet up by the conſtitution for confining the effects of the diſeaſe to the part where it originally exiſted: thus preventing its ravages or influence upon the conſtitution. When, therefore, an indurated and enlarged part of a truly cancerous diſpoſition begins to inflame and to be diſturbed, the morbid principle may be conſidered as having overpowered the ſhield or barrier formed around it for the defence of the conſtitution. On this principle, trees, when injured by external or other cauſes, ſeem to exude and form an external or adventitious ſupport to ſupply the deficiency of the part weakened or deſtroyed. But this is a ſpeculation with which we are not concerned, and by which we are in no degree whatever to be guided in the preſent inquiry. Facts alone, and thoſe indubitably proved, are in this place to be admitted, till ſuch a number ſhall be collected as will enable us to eſtabliſh, by fair induction, a ſound practice, no longer the creature of preſumption or vain opinions.

In the few inſtances of cancerous parts becoming gangrened, in the breaſt for example, though the whole *mamma*, or a great part of it, has ſloughed away, the ulcer has remained cancerous, and none of the patients have been ſaved. It is a curious fact, and worthy of particular notice, that no perſon with an old ulcer in the leg has ever been known to have cancer, though the ulcer was not ſuſpected to be cancerous. From this obſervation it is probable that iſſues have been ſo often directed, with the view of preventing or retarding the progreſs of cancer.

On the 24th of June, the SENATUS ACADEMICUS of the Univerſity of Edinburgh conferred the degree of Doctor in Medicine on the following Gentlemen, after having gone through the appointed examinations, and publicly defended their reſpective Inaugural Diſſertations.

FROM AMERICA,

John Wragg,	*De Nutrimento Fœtus.*
John Taylor,	*De Hominum Varietatibus.*

FROM ENGLAND.

John Thatcher,	*De Febre Puerperarum.*
Henry Herbert Southey,	*De Origine Syphilidis.*
John Booth Freer,	*De Impuberum Morbis.*
William Winſtanley,	*De Hyſteria.*

FROM IRELAND.

Mathew Quinlan,	*De Calculis Urinariis.*
Thomas Hancock,	*De Morbis Epidemicis.*
John Morriſon,	*De Menſibus.*
George Clarke, A. B.	*De Vermibus Inteſtinorum.*
Samuel Ferguſon,	*De Syphilide.*
James Browne,	*De Febre Puerperarum.*
Richard Hanly,	*De Noſtalgia.*
Luke Burne,	*De Anaſarca.*

FROM SCOTLAND.

Andrew Halliday,	*De Emphyſemate.*
Alexander M'Donald,	*De Veneno Serpentum.*
David Martin,	*De Typho.*
William Thomſon,	*De Generatione.*
John Haſtie,	*De Hæmaturia.*

An Account of the Diſeaſes treated at the Public Diſpenſary, Carey-Street, from 28th February to 31ſt May, 1806.

ACUTE DISEASES.

	No. of Caſes.
Synochus	4
Ophthalmia	3
Epiſtaxis	2
Apoplexia	1
Pneumonia	1
Peripneumonia Notha	5
Catarrhus	91
Cynanche tonſillaris	5
—— parotidæa	1
Pertuſſis	2
Rubeola	5
Scarlatina	1
Eryſipelas	1
Herpes Zoſter (ſhingles)	2
Peritonitis Puerperarum	1
Rheumatiſmus acutus	12
Arthritis rheumatica	3
Gonorrhœa	3
Iſchuria	1
Cyſtitis traumatica	1
Dyſenteria	7
Convulſio	2
Dentitio	2

CHRONIC DISEASES.

	No. of Caſes.
Cephalæa	17
Hemicrania	2
Catarrhus chronicus	9
Pleurodyne	34
Aſthma and Dyſpnœa	8
Hæmoptyſis	10
Phthiſis	10
Dyſpepſia	15
Gaſtrodynia	25
Dolores hepatici	4
Icterus	3
Conſtipatio	2
Enterodynia	9
Colica Spaſmodica	1
—— Pictonum	1
Diarrhœa	14
Aſcarides	7
Lumbricus	1
Tænia	2
Maraſmus	9
Hæmorrhois	4
Nephralgia	6
Dyſuria	5
Eneureſis	1
Exulceratio Pudendi	2
Hydrops	5
Tympanites	2
Leucorrhœa	10

CHRONIC DISEASES.	*No. of Cases.*	CHRONIC DISEASES.	*No. of Cases.*
Memorrhagia,	10	Lumbago	3
Amenorrhœa and Chloroſis,	9	Sciatica	2
Hyſteria,	9	Aneuriſma Aortæ	1
Chorea,	1	Dyſphagia	1
Epilepſia,	2	Rachitis	2
Hemiplegia,	3	Scrofula	3
Amauroſis,	1	Syphilis	4
Aſthenia,	29	Impetigo	4
Melancholia,	2	Prurigo	1
Dyſecœa,	1	Aphthæ	2
Cancer Uteri,	1	Echthyma	3
Abſceſſus Abdom. poſt Partum,	1	Scabies	4
Dolores poſt partum,	2	Pſoriaſis (of waſherwomen)	1
Rheumatiſmus chronicus,	35	Lichen	2

The month of March was uſhered in by cool, moiſt, and variable weather; from the 9th to the 13th it was exceedingly cold and ſleety, and there were two heavy falls of ſnow; the 14th, 16th, 17th, and 18th were rainy days; and the remainder of the month, with the exception of three or four days, was damp and cold. With two ſimilar exceptions, the month of April was cold and damp, with a general prevalence of eaſt and north-eaſt winds, as in March, and on the 12th and 13th much ſnow fell. May commenced with two days of extremely mild and clear weather, with a ſouth-weſt wind, ſucceeded by two of cold and wet, with a return of the N. E.; which has continued to blow through the month, except from the 6th to the 9th, when the heat was conſiderable, with a weſterly breeze, and on the 14th, when a heavy rain fell, with the wind S.W. During the whole month, there have been frequent alternations of warm and cool days, and the mornings and evenings have been frequently cold.

The number of catarrhal complaints has been conſiderably greater than during any three months ſince theſe reports were commenced. They were not only very prevalent in the ſevere month of March, but continue to prevail at preſent; without exhibiting thoſe ſymptoms of debility, however, which were their frequent concomitants in the early part of the winter. The different forms of catarrh conſtitute about 150 of the 500 caſes comprehended in the preceding catalogue.

Two of the caſes of acute rheumatiſm terminated fatally at an early period; the one on the 6th day from the attack, the other a few days later. Theſe are the only inſtances of the fatality of this diſeaſe that have ever fallen under my obſervation; and I ſhould have conſidered them rather as anomalies, had not ſeveral ſimilar caſes been lately recorded by Dr Haygarth. Dr H. juſtly remarks, that the common obſervation of phyſicians, that the acute rheumatiſm is ſeldom or never a fatal diſeaſe, is true, while it remains in its proper ſeat, the muſcles and joints, and when it is not combined with other mortal maladies. "But," he adds, "out of 170 caſes, I have found 12 which had a fatal termination, either by a tranſlation of the inflammation to the brain, lungs, kidneys, ſtomach, or ſome other vital part, or as being found in combination with other diſeaſes." Seven of the 12 were combined with *phrenitis;* and in one, where the pain and ſwelling receded from the joints, the patient was attacked with ſhortneſs of breath, cough, and ſpitting of blood, which ſoon terminated fatally. The two caſes above mentioned occurred in ſtrong muſcular men, of about 40 years of age. In the one, the pain and ſwelling of the knees and ancles, after having continued a few days, with little benefit from ſudorifics and laxatives, became leſs troubleſome, but did not altogether ceaſe, and the patient complained of a ſevere pain, returning at ſhort intervals, at the pit of the ſtomach, and greatly impeding his breathing. He had no cough. The pulſe was frequent, but extremely ſoft and compreſſible; and there was a conſiderable tremor of the hands. Opium, with other ſtimulants, produced a temporary relief; a bliſter was alſo applied, but ineffectually; and, the pain and difficulty of breathing rapidly increaſing, the patient died. The ſecond, a remarkably ſtout and heretofore healthy man, was expoſed to the rain of the 2d of May, and was ſeized the ſame evening with ſhivering and great pains in all his joints. On the 4th I ſaw him. He complained ſeverely of the pains in all the large joints; the knees and ancles were ſlightly ſwelled. He had alſo a ſlight dry cough, and ſome pain in the cheſt. The pulſe was frequent, full, and ſtrong. Although experience ſeems to have decided againſt the propriety of bloodletting, at leaſt in London, in rheumatic fever, yet the congeries of ſymptoms in this inſtance and eſpecially the combination of the ſlight pulmonic affection, led me to order about 12 ounces of blood to be taken away; a ſudorific was given at bed-time, and ordered to be repeated in the morning. But he felt himſelf reſtleſs and uncomfortable, and I found him out of bed, with the ſymptoms apparently more favourable. The next day (6th May), the difficulty of breathing was conſiderably increaſed, and he complained little of pain in any part. The pulſe was more frequent, but leſs full and ſtrong. A large bliſter was applied, but removed in the night, and not replaced till morning. The difficulty of breathing and cough had rapidly increaſed; there was obviouſly already a great effuſion in the lungs, and he was unable to lie in the horizontal poſture. At my next viſit, (May 8th), he was dead. It is probable that a more liberal uſe of the lancet might have been beneficial in this inſtance; in the former it may be doubted whether it was admiſſible. Theſe caſes tend to confirm the remark of Dr Haygarth, and the ſtill more pointed obſervation of Profeſſor Calliſen: "Rheumatiſmus externas partes occupans, fixus, periculo carere ſolet; vagus, internas nobiliores partes petens, *maximas ſanitati ac vitæ inſidias ſtruit* [†]. T. B.

[*] See a Clinical Hiſtory of Diſeaſes, part I. p. 61.

[†] Syſtema Chirurg. Hodiern, tom. I. p. 228.

TO CORRESPONDENTS.

The Communications of *Senex* and Mr *Coates* arrived too late for this Number.

No. VIII. *will be Publiſhed on Wedneſday, October* 1. 1806.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

"*An Account of the Illness and Death of* H. B. DE SAUSSURE, *late Professor of Philosophy, at Geneva.*" Communicated by LOUIS ODIER, M. D. and Professor of Medicine.

MR DE SAUSSURE was accustomed, from his infancy, to mountainous excursions, which had inured him to the influence of the greatest possible range of atmospherical temperature, as well as to bodily fatigue. Nevertheless, he enjoyed a good state of health, until after a journey, made about three years ago, to the Boromean Isles, during which, he ate a large quantity of acid fruits: he was attacked with a long and serious complaint, which seemed to have its seat in the stomach, or pancreas; for a long time he was unable to bear any sort of food, all remedies proving ineffectual, with the exception of Starkey's Soap, from which he received considerable benefit. He henceforth constantly laboured under symptoms of difficult digestion, being frequently troubled with flatulence, and his stomach was so apt to generate acidity, that although, for a number of years, he lived almost entirely upon animal food, carefully avoiding the use of fruits, greens, and acid drinks, he experienced every day, some hours after dinner, a sort of Pyrosis, which obliged him to have recourse to chalk and other absorbents in large quantities, and even to reject a part of the contents of his stomach. Fortunately he had acquired the faculty of voluntary vomiting, which he effected without any effort. When he resisted that urgent propensity to vomit, he felt a great load on his stomach, accompanied with so much anxiety and acidity, that nothing could remove these symptoms except vomiting, to which he was at last obliged to resort. Commonly however, he did not wait till that affection had gone so far, but he selected his opportunity so well, that most of his friends and relations remained ignorant of his infirmity. For the last 15 years he had been subject to frequent attacks of the piles, which sometimes gave a pretty copious discharge of blood. His skin was rough and uneven from an herpetic disposition, common to several individuals of his family. Lastly, he had, some years before his death, a pimple on his nose, which continued many months, and passed into a bad sort of ulcer, with hard and callous edges: of so alarming a nature, that the use of the actual cautery became necessary, which operation he bore with great courage, and it was attended with complete success. An issue was then made on his arm, and kept open ever since.

At the end of the year 1793, after long and laborious efforts to stem or to direct the torrent of our political revolutions, joined to the painful idea of the downfall of his former opulence, which nobody had more right to deplore than he, who had always employed his pecuniary means for the noblest purposes, he was suddenly seized with vertigo, which was followed by a distinct sense of numbness in the left arm and cheek. The vertigo did not last long; but nothing could remove that feeling of numbness or torpor. I resorted to blisters, purgatives, frictions with mustard and with flannel, in vain; and successively, to a number of tonic and antispasmodic remedies. That affection of the arm seemed to be seated rather in the sentient extremities than in the moving fibres, for the patient retained his strength; his arm, could perform all kinds of movements, but he could not distinguish easily what he was touching. It seemed to him as if sand was interposed between his fingers and the bodies. That sensation was even painful to a certain degree, and the excess of sensibility made him fearful of using his hands without gloves. He experienced a similar sensation in the cheek and mouth of the same side, which, on passing his hand over his face, formed, in a most unpleasant manner, a well marked line of demarcation between the right and left side. In other respects, he was well, his general health was not impaired, nor did there exist symptoms either of plethora or of weakness. He retained likewise, for a long time, his presence of mind, and his intellectual faculties, entire. Many months were passed in this state, in the course of which, a great variety of remedies were tried, as cold and warm bathing, elecricity, arnica, valerian, blisters, embrocations, artificial and natural thermal waters, change of regimen, travelling, &c. but all in vain. The complaint became worse and worse, always however by starts; the attacks being more or less violent and complete. One of the most violent was occasioned suddenly at Bourbon by a shower-bath employed too warm. The attack produced by it was so complete, that the whole of the left side, from the leg to the tongue, were affected. His pronounciation became by degrees indistinct and unintelligible; his legs, especially the left, became heavy, and lost their flexibility and strength. He observed this, particularly when he tried to walk in a straight line in his room, along the narrow dark coloured boards which crossed the floor of his apartments. Exercise of this sort had been very familiar to him, and by this he had acquired greater facility in climbing mountains along narrow paths on the borders of precipices. But his disorder had rendered it more and more difficult for him. He could not long preserve his equilibrium, nor direct his steps as he wanted. What is singular, after the complaint had deprived him of the power of walking without support, it was in passing through doors, that the motion became particularly painful and difficult. He crossed his room, for instance, with a tolerable steady step; but when he reached the door, although it was wide open, much wider than his body, and quite on a level with the next parlour, it required great exertion for him to get through it. He balanced and quickened his motion as if he had to make a dangerous leap, or a bad step to get over; when it was done, he recovered his equilibrium and usual firmness, crossed the room, but had the very same difficulty to surmount, in order to get into another apartment.

On his return from Plombières, he had a copious herpetic eruption over the eyes and forehead. Hopes were entertained of some possible diversion of his disorder upon this and other occasions. However, the disease went on encreasing; the only remedy that seemed always to have some temporary efficacy in alleviating the symptoms was a blister, and he had recourse to these whenever he experienced any return of headach, vertigo, or flashes of light before the eyes, *(éblouissemens)* to which he became often subject. About 15 months ago, I was led by the reports of Dr Beddoes on the use of factitious airs, to have Mr de Sausseure respire a superoxygenated air. Before a convenient apparatus could be procured, he tried water impregnated with a small quantity of oxygenous gas, made under his inspection by his son; but I advised him afterwards to give it up, because it seemed to encrease considerably the quantity of urine, (this excretion amounting to more than his drink) and to aggravate his weakness. The rough feeling of his skin, the œdema of his legs, the acidity to which he had long been subject, his immoderate appetite, and lastly, the thirst, which he experienced also at this period, made me suspect the existence of some diabetic affection. To this disorder, he seemed to me particularly predisposed, and this was not to be lost sight of, as he entirely changed his diet for some months past, by the advice of Dr Tissot. Since the paralytic state had been quite established, the vomiting had also entirely ceased, and his food consisted principally of vegetable acid fruits, from the use of which, he did not perceive any inconvenience to arise while the herpetic eruption had been much mended. At any rate, those fears about diabetes were soon dismissed. I had his urine evaporated; it gave but little extractive matter, but a large proportion of saline residue, resembling what is found in hysterical urine; by merely relinquishing the use of fruits and oxygenated water, the diabetic symptoms above described soon disappeared. Some time after, we got the proper apparatus for inspiring superoxygenated air. He tried it, but could never inspire it without efforts which fatigued him; and the continuance of the practice was the more objectionable, as he received no benefit from it. The complaint advanced rapidly by insensible degrees, the intellectual faculties became every day weaker, a troublesome incontinence of urine, a spasmodic contraction of the three last fingers of the left hand, and a gangrenous ulcer on the prepuce came on in succession, till at last death supervened, almost suddenly, to free him from so many infirmities. The evening before his death he seemed to enjoy his supper, but was restless during the night, towards morning his head leaned to one side, he breathed with more difficulty than usual, and expired without agony.

On opening the body, 32 hours after death, the dura mater was found adhering firmly to the cranium, particularly along the longitudinal sinus; but that deviation from the natural structure is often met with, and is of no importance. Between the pia mater and arachnoid coat we found a considerable effusion of a substance, resembling at first sight that gelatinous matter found frequently in the brain of persons who have died of some comatose affection. It had the bluish colour peculiar to that matter. In various places there appeared circular spots of a grey yellowish colour, about two or three lines in diameter: these seemed as if they penetrated into the membranes, though susceptible of being detached from them, like small separate spheres, surrounded by a little circular margin of a dark red. At first view, we took those spots for real hydatids; but, on attempting to separate them from the membranes, we found that red margin was a blood vessel connected with other vessels of the head, and convoluted in the form of circles. There were no separate pouches or solution of continuity in the membranes, only ly they were more transparent in those places than in others The serosity underneath communicated freely with that which was diffused over all the surface of the brain, both having the same colour and qualities. On opening the membranes, the serous effusion ran off like water; we collected two or three spoonfulls of it, and exposed it to the flame of a candle. No coagulation took place; a strong ebullition was continued until the whole of the fluid was evaporated, without leaving any perceptible residue. The effusion existed not only upon the whole surface of the brain, but likewise on that of the cerebellum. In this part, the effusion appeared much more considerable on the right than on the left side. We observed, in some blood vessels, bubbles of air mixed with the blood, as is sometimes the case between the globules of mercury in Barometers, into which any atmospherical air has been forced by a shake. The ventricles too were full of the same serosity, their capacity was enlarged considerably by the contained fluid. We estimated the whole quantity at about five ounces. The choroid plexus seemed as if almost entirely made up of hydatids in the form of beads; but that appearance is not uncommon. It is owing to the dilatation of the delicate vessels which compose that plexus, and not to separate hydatids. The examination of the head presented nothing more of importance, except that the brain was flattened at the temples, and deeply furrowed by arteries.

The abdomen presented a very extraordinary appearance. When the integuments and peritonæum were laid open, we could perceive neither the stomach, nor liver, nor colon. The small intestines and the cæcum only could be seen. The latter was of a monstrous size, its circumference measured 14 inches. That of the ileum, on its entrance into the cæcum, was four or five inches. The appendix vermiformis was four or five inches long, adhering, by its extremity, to the posterior surface of the cæcum. The colon, entirely hid by the small intestines, was likewise much dilated, and after ascending on the right side above the liver, to the diaphragm, under the 6th and 7th rib, passed then to the left side, where it ascended again so far as to the 5th rib, exactly under the breast, so as to be contiguous in that place to the apex of the heart, from which it was separated only by the diaphragm, which was pressed upwards by that adaptation of parts. Instead of passing under the liver and the stomach, the colon passed above those viscera. It embraced the stomach at its superior orifice, and compressed it so much the more; because, instead of descending, as in the natural state, on the left side, it turned back obliquely towards the right, so that its sigmoid flexure was next the cæcum. It terminated at length in the rectum, which was itself dilated to the common size of the colon. All the other abdominal viscera were in a sound state: there was no vestige of obstruction, or hardness, or any other mark of disease in the pancreas.

In the cavity of the chest the lungs were found small, but perfectly healthy, so were the heart and large vessels; the diaphragm, however, being pressed upwards. Had the cavity of the thorax been confined to its usual limits, there would not have been room enough for the organs of respiration to play. The lungs had consequently got under the clavicles, rising pretty high on each side of the neck. Time did not allow us to examine minutely the attachments of the pleura and mediastinum, under those peculiar circumstances of internal structure.

From the above dissection, the following consequences may be deduced:

1°. The proximate cause of this complaint, and of Mr de Saussure's death, was the effusion of a large quantity of serum into the ventricles, and between the membranes of the brain, which, by compressing that organ, must necessarily have impaired the energy of all the faculties depending on its action. It is possible the effusion began between the membranes of the cerebellum, since it was there only that we were able to find any difference between the right and left side. The complaint, though general towards the conclusion, was long confined to the left side, which would lead us to conclude, as is commonly supposed, that the right side of the brain was most affected. An effusion similar to the one just described, is a pretty frequent cause of apoplexy; but it usually takes place suddenly, and the duration of the complaint is only for a few days. I have lately seen a man, 60 years of age, attacked with a fit of apoplexy, which terminated fatally after 60 hours; and the same appearances presented, on opening the head, as in the case of Professor de Saussure, whose disease lasted five years. It is singular such an alteration in the natural organization of the brain should have produced so little change in the intellectual faculties. Another thing worthy of attention is, that with the exception of some occasional flashes of light, the eyes were never affected, and the pupil always contracted readily. Its dilatation, we know, is the usual consequence of an effusion into the ventricles, which occurs in the hydrocephalus internus of infants. We may conjecture that the complaint of Professor de Saussure having advanced by slow degrees, the optic nerves were able to habituate themselves to a compression which would have affected them, if the effusion had taken place suddenly. But in the person I mentioned, whose illness did not continue three days, we were equally unable to observe any dilatation of the pupil. What may be the cause of such differences? That is at present, and will probably long continue, unknown to us. Disorders of the brain, to all appearance, exactly analogous, often produce very different effects; and effects precisely similar, are frequently owing to very different disorders. In most cases, the cause of the effusion is equally obscure. Here it may be ascribed with sufficient probability to grief, anxiety, and over-exertion of mind, excited in Mr de Saussure, by our revolutionary events. On the other hand, I have heard since his death, that he had a violent fall on a stone stair-case, at the beginning of the year 1793; and we know hydrocephalus is frequently the consequence of a fall, or a violent blow upon the head. Next I have been assured by his son, that his father frequently mistook one word for another long before his death, and was so unconscious of his mistake, as to get angry when not understood. This would seem to indicate a commencement of the disease, prior to the first attack in 1793. Lastly, it might be supposed, that the displacement of the intestines might, to a certain degree, press upon the large vessels, and thus impede the circulation in the head. At any rate, may I be indulged with a conjecture,—in certain cases, the disengagement of some elastic gases in the vessels of the brain may impair the functions of that organ? The well-marked appearance of air-bubbles which we observed in some of those vessels, and the same appearance has frequently struck me in other dissections, has given rise to this idea, the truth of which I leave to further enquiries to ascertain or to disprove.

2°. Passing to the state of the abdomen, we may remark, that the change of situation of the colon and its pressure on the superior orifice of the stomach, easily explain the habitual vomiting of the patient some hours after eating. The extreme dilatation of the large intestines may have been the effect of the keen appetite which the mountainous excursions of Professor De Saussure must have induced, and which he usually satisfied with a coarse kind of food, apt to generate large quantities of fæcal matter, accumulated and hardened by exercise in the whole course of the great intestines. I had long foreseen the dilatation of the rectum, because it produced symptoms of compression upon the vesiculæ seminales, which the patient had often mentioned to me, and I could only account for under a supposition of that sort. Perhaps it was one of the causes of the incontinence of urine, which troubled him during the last six months of his life. Nothing, however, could have enabled me to guess the extraordinary change in the situation of the colon—Was it in consequence of peculiar conformation, or of gradual dilatation? I am rather inclined to the latter opinion. The perfect healthy state of the pancreas leads me to think that organ had never been affected (as some eminent practitioners had said), and the symptoms suspected to be seated in that part, were most likely owing to the unnatural situation of the colon, which I conclude to have been displaced at that time. For those symptoms had continued ever since, though attended with less irritation in consequence of habit: while on the other hand, it is difficult to believe, that an affection of the pancreas, so great as was then supposed, should have left no traces of its existence. I must confess, however, an accidental displacement of the colon, and in that direction too, is a phenomenon which I never saw before; it is quite unheard of in the annals of medicine, and apparently contrary to the first principles of physics. These would naturally make us believe, that the weight of matters contained in that intestine, should have depressed its curvature, and brought it nearer to the ossa pubis, instead of removing it farther off under the diaphragm. But we must consider the great muscular strength of Mr De Saussure, and the continual exercise to which he was accustomed, especially ascending mountains, a motion very familiar to him, which, by causing the abdominal muscles to contract frequently, must encrease considerably their tension; these circumstances may have, to a certain degree, counterbalanced the effect of gravity, and forced the intestine to extend, in the upper part of the abdomen, away from the obstacles opposed for its depression.

3°. Lastly. The small capacity of the chest, cannot serve to explain, why the breathing of Mr De Saussure was affected on the top of high mountains. Other naturalists, with a very large chest, supported the rarefaction of the air, with more difficulty than he did, and even at a less height. The symptoms he experienced in those elevated regions are much the same, as those described by the Academicians who ascended the Cordillieres: and it is not likely any of them had the same formed chest as Mr De Saussure. I never saw it but in his case. It is singular, it produced no effect in his usual state; and still more, that the coarse matters which had to pass along the colon so near to the heart, never occasioned the slightest alteration in its movements. I have lately seen a woman betwen 60 and 65 years of age, who has been long subject to violent fits of spasms, the cause of which had never been ascertained. I was called to see her in one of these paroxysms.—I found her stretched on her bed, unable to move, complaining of a sense of pressure at the region of the stomach that rendered her breathing difficult, with constant palpitation of the heart, the pulse beating 180 in a minute, and very irregularly. It was rather a tremor than successive contraction. This state was preceded for some days by constipation of the bowels, which began suddenly, and lasted 30 hours, when she had a copious evacuation. Immediately after, she became pale, and fainted away; and, on recovering from this syncope, which did not last long, she felt perfectly well. I saw her at that moment, her pulse was then regular, beating 72 strokes in a minute. A few minutes before, I found it just as frequent and irregular, as at the beginning of the paroxysm. That circumstance led me to presume, the cause of the disorder was the sudden accumulation of fæces in some pouches of the colon, which compress the aorta or vena cava at a small distance from the heart, and thus obstruct the whole circulation, until the pouch was emptied, and the compression ceasing, the blood could resume its free course. The sudden occurrence of such a circumstance, might occasion, for a few moments, a disturbance of the equilibrium, which produced fainting. I directed my plan of treatment under that supposition. I advised 1°. To keep the bowels open by remedies capable at the same time of strengthening the intestines. 2°. To give, at the commencement of the paroxysm, some spoonfulls of castor oil Although this method has not completely checked their return, it has succeeded so far as to diminish considerably their intensity, and the length of their duration.

Geneva, Dec. 1805.

II.

Remarks on the White Induration of Organs. By G. L. BAYLE, M.D. Assistant Anatomist to the School of Medicine at Paris *

THE white indurations of organs are easily recognized at first sight by a remarkable change in the colour, and consistence of the altered part. But these indurations, which at first sight may seem identical, are in fact very various, and the constant diversity of their progress leads to terminations so disimilar, that it is of the highest importance to mark well the distinguishing characters of each.

These indurations are fibrous, tuberculous, or cancerous. The fibrous are not of themselves dangerous, they pass to the fibro-cartilaginous, or osseous state; but the carcinomatous, or tuberculous terminate in the destruction of the affected part.

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(* See Journal de Medecine, Vol. 9. An. xiii. page 285.)

As these different lesions are not easily distinguishable at first sight, and have been commonly confounded under the name of scirrhus, we have endeavoured to find, in their structure and progress, the means of distinguishing them from each other. I am now accordingly to describe the common characters, and particular differences, of the tuberculous and carcinomatous indurations.

These two modes of lesion may be included under the name of *chronic albuminous degeneration of organs.* Their common character is a particular alteration in the texture, distinguished by a white or grey colour, and by the property of hardening by the action of fire, by boiling in water, and by immersion in acids.—The most remarkable difference in their progress consists in this, that the tuberculous terminates in a white suppuration, more or less grumous, and not corrosive; while the carcinomatous terminates in an ichorous and sanious suppuration, which excoriates the neighbouring skin.

There are other modes of albuminous degeneration not yet described, which might hereafter form new genera of the order of lesions here spoken of. These will be noticed in a separate memoir. I shall here confine myself to a description of the general characters of tuberculous and carcinomatous degenerations. These diseases which are extremely common, I have had many occasions of observing and comparing with each other, in all their stages.—I have thus been enabled to mark well their particular progress, the characters which distinguish them from other modes of alteration, and those, by which the tuberculous may be distinguished from the carcinomatous degeneration. These characters will be readily understood, by a short description of these two modes of alteration, and by a relation of the progress of each.

Distinguishing Characters of the Tuberculous Degeneration.

In the tuberculous degeneration, the altered part is opaque, and commonly of a dull white, slightly citrine, and uniform. The colour indeed may vary from a dull white to brown; but the opacity is always perfect, and the intimate structure homogeneous.

There are three degrees of this change. In the first, the affected portion seems to differ only from the natural state, by a slight white, or grey colour, which however may be distinguished even in those organs, which are naturally white, because the parts affected with this change of structure, are of a more dead white, and more opaque than the rest of the organ In the second stage, the altered portion becomes still more opaque, it acquires a greater density than the rest of the organ, and becomes at the same time, more firm, and more elastic. It is still, however, manifestly organized, and when strongly compressed, it separates into very irregular little masses, between which may be perceived cellular substance, varying in quantity, and closeness of texture, and sometimes also small, but very distinct vessels. To this succeeds the third stage, characterized by the want of every organic appearance, and by the dissolution which proceeds from the interior to the exterior, transforming the altered organic portion into pus, thicker or thinner, in which are commonly found purulent lumps, or solid, softish, irregular, greyish or whitish, and caseous little masses. The surrounding parts frequently become hard, and at length even ulcerate; but they never become tuberculated in consequence of this induration.

Distinguishing Characters of the Carcinomatous Degeneration.

In the carcinomatous degeneration, the altered organ appears at first sight of an uniform dead white colour, but when viewed more minutely even with the naked eye, and still better if assisted by the lens, the degenerated part is discovered to have a texture composed of two substances; the one fibrous and opaque, and the other, which hardly seems organic, is commonly transparent. The fibrous substance consists of laminæ, which are irregular, unequal, of different size and thickness, and disposed in different directions. These laminæ form a great number of different irregular cells, containing the inorganic substance, of a bluish colour, a sky blue, and sometimes sea green, seldom white or red, almost always shining, transparent and crystalline, and at least as firm as the fibres which form the opaque substance.

The carcinomatous like the tuberculous disease has three stages; the first is that which we have just described; the second is characterised by the softening of the transparent matter, or by ulceration proceeding inwards from without, and sometimes from within outwards. The third stage is easily known by a fungous ulceration with unequal and often elevated edges, the surface being more or less deeply furrowed, covering a very firm tumour, which insensibly passes from the second to the third stage, while the neighbouring parts indurate, change their nature, and become scirrhous, then cancerous, and shortly after, dreadful carcinomatous ulcers, which, when they cannot be removed by art, are always mortal.

The first stage of the carcinomatous disease, is the only organic alteration to which the name of scirrhus should be given, it is the only one which becomes cancer, while tubercles, and the tuberculous degeneration not contained in a cyst, and commonly called scirrhus, never become carcinomatous; neither do the fibrous bodies of the womb, and different other alterations of structure, which have been termed scirrhus, even terminate in real cancer.

Varieties of Tuberculous Affections and of Carcinomatous Affections.

After having described the tuberculous and carcinomatous structures, it is proper to mark the varieties of these genera.

Considering them with a view to pathological anatomy only, several lesions may be arranged under these two modes of organic change.

Amongst the tuberculous affections may be placed :—

1. Tubercles which form in different organs.
2. Tuberculous degenerations not encysted.
3. Accumulated tuberculous matter.

Tubercles are formed by a white or grey matter, but always more or less yellow and compact, contained in cysts generally membranous, and always adhering to the tissue of the organ in which they are placed.

Tuberculous degenerations not encysted have the same appearance as the internal matter of tubercles; they form in the immediate substance of organs, and the diseased texture is not separated from the sound by any intermediate substance or cyst.

Accumulated tuberculous matter is a solid body not organized, formed of a white or grey albuminous substance, which separates the texture of the organ in which it is inclosed, and finishes by softening from the centre towards the circumference, becoming changed into a grumous pus.

Amongst the carcinomatous affections may be placed :—

1. Cancers of glandular organs.
2. Cutaneous cancers.
3. Cancers of mucous membranes
4. Cancers of the muscular coats of hollow viscera.
5. Cancers of parenchymatous organs.
6. Carcinomatous alteration of different organs secondarily affected in consequence of the propagation of the cancers already enumerated.

On former occasions, we have delivered our observations on scirrhus of the stomach (1.); and ulcerations of the womb (2.); we have marked the characters by which fibrous bodies differ from scirrhus (3.); and we have spoken fully of tubercles. (4.)—In our next communications, we shall examine very fully the tuberculous degenerations *not* encysted.

(1.) Journal de Medecine Tom. v. page 72.
(2.) Journal de Medecine Tom. v. page 238.
(3.) Journal de Medecine Tom. v. page 62.
(4.) Journal de Medecine Tom. vi. page 3.

III.

Observations on Tubercles found in the Brain of two Scrofulous Subjects, By F. V. MERAT, M. D. Clinical Assistant at the School of Medicine of Paris.*

I HAVE thought it might be useful to present to the profession examples of a variety of lesion which appears to me not to have been observed, or at least not described, amongst scrofulous affections, and which, in this view, will perhaps appear interesting.

CASE 1.

L. H. æt. 14, had always the appearance of delicate health, without, however having ever been affected with any serious disease. His skin was fair, he spoke slowly, and showed more maturity of understanding than is common at his age; he preferred study to the usual amusements of children. The general character of his constitution was scrofulous, although no symptoms had appeared before the 13th year. At this period, he complained of pain of his left knee, which soon became enlarged, but without change of the colour of the skin—about six weeks before this, he had had an intermittent fever, which was properly treated; and when convalescent he went to the country. The swelling of the knee being deemed scrofulous, was treated accordingly. A celebrated surgeon who was consulted, advised bitters, an animal diet, emollient applications, and afterwards the tepid affusion to the knee. During this treatment, the child could scarcely make any use of his limb; the joint was a little bent, so that he halted. However, after six months, the knee sensibly diminished, especially after having used the pump bath of sulfureous water.

For two months he had complained of severe pains of the head, for which a gentle treatment had been employed without relief, when, on the 5th Prairial last, he was suddenly, and without any obvious cause, attacked with convulsions, which in two days terminated in a comatose state. Leeches were applied to the neck, blisters to the back and legs, and stimulant drinks were given, but ineffectually, and the patient died in an apoplectic state on the 8th day of this attack.

Dissection.—On opening the body, we found the brain large, having the circumvolutions flattened, the vessels turged, and swimming

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(* See Journal de Medecine, Vol. x. Vendemiaire, An. xiv. page 3.)

ing as it were in a bed of gelatinous serosity. There were two or three ounces of water effused in the lateral ventricles; some also was found at the base of the skull, and in the canal of the spinal marrow.

Behind the superior part of the medulla oblongata, there was discovered a fatty body of the size of a wallnut, of a reddish or rather rose colour, appearing interiorly a homogeneous substance penetrated by little red lines, which were probably small vessels. It was contained in a very fine thin covering, little adherent to the neighbouring parts; in a word, it was a true tubercle. One other tubercle, only not quite so large, was found in the middle of the left lobe of the cerebellum.

In the abdomen, the mesenteric glands were enlarged, and several becoming obstructed. In the cavity of the small intestines were found, here and there, ulcerated spots.

Remarks.—This patient died suddenly of a disease, which seems to have been independant of the scrofulous affection. These tumors, however, might perhaps, by compressing the origin of the nerves, have been the cause of the convulsions, and of the coma which succeeded. It is evident, that the severe headachs of which he complained are to be attributed to the tubercles of the brain, which compressed the surrounding parts. And the reason is evident why they could not be relieved by any mode of treatemnt.

CASE 2.

A. S. C. æt. 35, of an infirm constitution, and irascible temper, had been subject, during the greater part of his life, to a succession of severe diseases, which hardly left him one moment of tolerable health.

In his infancy he had a malignant small pox, followed by obstinate ophthalmia, and an epistaxis which returned almost every spring. At the age of 13, he had an ague of nine months duration, but cured at length by cinchona and bitters; when 14 years, he suffered from a gleet which continued two years, and yielded at last to saturnine injections; he had at the age of 18 a gastric fever, which lasted six weeks, and enjoyed for some years rather better health; when 24, he was attacked with hæmoptysis, which continued six days, and was succeeded by a cough of six months; at 25, he contracted a fresh gleet, with chancres and buboes, which persisted under different forms for four years and a half, at which time, after an incomplete course, the symptoms were relieved without being radically cured. A.S.C. had now attained his 30th year, and was still affected with scrofulous symptoms. And now having engaged in the military service, he was employed in a cold country covered with snow, *(le pays de grisons)*; after remaining there a month, new chancres appeared on the glans, and several glands of the neck became enlarged. To these symptoms were joined severe pains of the joints, loss of appetite, and prostration of strength. And after some time, he was discharged on account of the shattered state of his constitution. With difficulty he walked to Paris. During his journey, which lasted two months and a half, the cough and oppression of which he had complained, became worse. He was feverish; the glands of the neck which had been obstructed were now ulcerated; the chancres of the glans were extended, the feet swelled, and, to use his own expression, *he slavered blood.* He was received into the Lock Hospital, where he underwent a mercurial course of four months, suspended however, from time to time, on account of the hæmoptysis. The venereal symptoms were cured; but the scrofulous disease continued unchanged.

About a twelvemonth thereafter, new scrofulous symptoms appeared, such as obstructions and glandular swellings, which suppurated; the hectic fever returned. He was received into the Hospital of St Louis. The only relief obtained after remaining there two years, was the healing up of several ulcers; but when dismissed he had still a cough, and a fistulous sore, connected with caries of the second metatarsal bone of the right foot. He remained six months at home tolerably easy; but he was seized last autumn with a catarrhal complaint, for which, on the 13th Brumaire, An. 13, he became a patient at the Clinical Hospital of the School of Medicine. Besides the catarrhal symptoms, he had evident marks of scrofula, of lues, and even of scurvy. But chiefly remarkable was the violent pain of the head, of which for some days he had complained, and which continued unabated till death, notwithstanding every remedy employed. Towards the conclusion of his life, it became so intolerable, that he was obliged to remain motionless in bed, the slightest movement aggravating it to perfect torture.

The catarrhal affection abated; the scrofulous disease persisted; the phthisis ran its course; and, in spite of all the resources of art, A. S. C. gave up the ghost on the 10th Messidor, An. 13. seven months after his admission. The marasmus was complete, and, for a month previous to his death, the odour from the suppuration of the scrofulous sores was detestable.

Dissection.—The whole body was greatly emaciated, and covered with the cicatrices of scrofulous ulcers, and open sores of the same kind. The brain was soft. The lateral ventricles contained about three ounces of colourless serum; there was none at the base of the cranium. At the superior and middle part of the right hemisphere of the brain, there was a pretty firm tumour of the size of a pigeons egg. It had a fine reddish coat.—The inside of the tumour was a yellowish substance somewhat of the cerebral colour, but having a very distinct organization. In the anterior part of the left lobe of the cerebellum there was a similar tumour, but twice as large, and more rounded in its outline.

The disorganisations of the throracic and abdominal viscera were such as belong to the highest degrees of phthisis and scrofula.

Remarks.—Again, we must observe to what a troublesome series of diseases this patient was subjected, and how wretched his existence. An observation which ought not to be overlooked, is the age at which the scrofulous affections began to appear in this individual. He had no sign of this disease before the age of 30. Now, although scrofula may appear at any age, it most commonly declares itself in infancy; and even where it remains concealed till more advanced years, there are almost always some appearances to be observed in youth, which anounce the future disease.

Shall we say, that this disease was induced by the venereal virus? This metamorphosis has been admitted by some authors, and the present case, it must be confessed, is favourable to the opinion; for the scrofula did not declare itself till after the patient had been four years and a half afflicted with venereal disease, badly treated, and not cured. In this, as in the former case, the cause of the cephalalgia is evident; but it was much more considerable. It is true, that the tubercles were larger; and also, that they had existed much longer, if we refer their origin to the beginning of the disease, which had continued more than seven months. No remedy, it is evident, could affect these tubercles.

Reflections on these Cases.

Tubercles of the brain appear to me to be of very rare occurrence. I do not recollect to have read of any example of this affection, even in the latest authors. M. Bayle, who has written a Memorial on Tubercles, makes no mention of them. These cases may, therefore, serve as a supplement to his Memoir.

Some objections may perhaps be made to the name of tubercles conferred on the cerebral tumours which I have described. The little adherence which they have to the organ in which they are found, and their existence, even without the organ, may give rise to doubt. It is difficult, however, to assign them any other name.

The small quantity of cellular substance with which the brain is provided, is probably the cause of their slight adherence. I can aver, that placing certain tubercles of the mesentery beside those of the brain, it was almost impossible to perceive any difference. Nor is it so wonderful, that tubercles should be formed in the brain. Scrofula produces them in all the other organs; and probably, it is only because circumstances are there less favourable to their formation, that they are more rarely found in the brain.

These observations lead us to believe, that when very obstinate pains of the head occur in scrofulous subjects, the presence of tubercles may be suspected in the brain. And they demonstrate the insufficiency of art in such circumstances. But relative to the history of scrofula, these cases are not altogether without interest, and are therefore offered to the public.*

IV.

The History of a Case of Diseased Spleen, with the Appearances on Dissection. By NATHAN DRAKE, M. D. Hadleigh, Suffolk.

GENTLEMEN,

I TRANSMIT to you the detail of a series of singular symptoms, and which appear to have arisen from as singular a cause. I consider the case, indeed, as unparallelled in the History of the Morbid Anatomy of the Spleen; at least, after much research, I have not been able to discover, in those authors who have collected the phœnomena of Morbid Anatomy, any instance of similar derangement.

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* The appearances on dissection in these cases are unusual, but not unexampled. To us, they appear chiefly interesting, as marking a connection between scrofula, and hydrocephalus internus, already observed by others. For we cannot doubt that these patients died of water in the head. The first case is a well marked example of acute hydrocephalus; the tubercles, in all probability, had existed long before the attack of this fatal disorder, and were remotely connected with it.—EDITORS.

Mrs. Newman, aged 49, a widow lady of a corpulent habit, and who had been subject, for many years, to dyspeptic complaints, was, in the afternoon of the 29th of October 1805, shortly after dining heartily on roasted pig, seized with violent sickness, vomiting, and pain, in the region of the stomach, which symptoms, though somewhat mitigated by the evacuation of the contents of the stomach, returned in a few hours with augmented force, accompanied with extreme lancinating pain under the left spurious costæ.

As these distressing complaints continued with few intervals during the night, my attendance was requested on the following day. I found her labouring under frequent returns of sickness, and bringing up, with strong convulsive efforts, a great quantity of thin porraceous bile of an extremely acid odour, and agonized with so much pain in the left hypochondriac region, and more immediately under the spurious costæ, as frequently to occasion her to shriek aloud. Her pulse was 130, neither full nor hard; the tongue white, but not dry; the skin hot and harsh to the touch, and the thirst considerable. Her bowels had been rather in a constipated state for some days previous to the attack; and she had had no motion since the commencement of her present symptoms, although powerful medicines had been given, and other means resorted to for that purpose, by my friend, Mr Bunn, her family surgeon. No hardness was discoverable in the abdomen or hypochondria; the body, however, appeared rather distended and full; and the urine was high coloured, and deposited a copious lateritious sediment. No rigor or shivering had been experienced preceding, during, or since the first attack, and there was no pain or difficulty in breathing.

The irritability of the stomach being so great as to occasion the almost immediate rejection of every thing she took, whether food or medicine, an opiate plaster was applied to the pit of the stomach, effervescing draughts, with a slight opiate, were ordered every two hours, with small doses of calomel in pills, and an opening glyster was injected in the evening. A considerable portion of the draughts and pills was retained; but as no motion had taken place on the 31st, though the tendency to vomiting had abated, pills, with calomel and extractum colocynthidæ compositum, were given every two hours, the abdomen was assiduously fomented, and the enema was repeated. No evacuation having taken place in the evening, and the pain continuing violent, two table spoonfulls of a strong solution of magnesia vitriolata were ordered every hour; she went also into the warm bath, which she bore very well for 15 minutes, and had another enema injected shortly after her return to bed. As no effect, however

ever, was yet produced, and the danger was encreasing every moment, I proposed a consultation, and Dr Clubbe of Ipswich met me early on the succeeding morning. The medicines had, with few exceptions, staid upon the stomach for a considerable time after they had been taken; but the vomiting was, at intervals, excessively violent, and the peristaltic motion of the stomach and intestines appeared to be completely inverted. The pain of the left side was excruciating, and the pulse was more than 130, and feeble. Upon Dr Clubbe's arrival, we agreed to continue the magnesia vitriolata, combined with manna and calcined magnesia, and, with a view to ascertain the state of the circulating fluids, to take four or six ounces of blood from the arm; this, on standing a due time, exhibited a thin, concave, buffy surface; but as the crassamentum was dark, and remarkably loose and broken, and the pulse very weak, we thought it dangerous to push this evacuation any further. The enemata were repeated, the fomentations continued for some hours, and afterwards a blister applied to the whole abdomen. At length, on the evening of the 1st November, after a very large quantity of purgative medicines had been given, a small motion took place, which, in the course of the next 24 hours, was succeeded by 15 more, and a prodigious quantity of black, knotty, and hardened fæces, but with little fœtor, was evacuated. The relief obtained was great; the pain was removed; the irritation of the stomach subsided; and the pulse sank to 80.

We had now great reason to hope, that the seemingly apparent cause being removed, our patient would do well; but in this respect we were unhappily disappointed; the pulse, on the following day, again rose to 100, and though the vomiting at present but rarely returned, an unconquerable degree of acidity existed in the stomach. The pain of the left side was now little felt, whilst the patient was laid upon her back; but there was an inability of lying upon that side, even for five minutes, without an insupportable sensation of weight and dragging. Tonics, bitters, and antacids, both in diet and medicine, were prescribed, and the bowels were kept in a laxative state by calomel and a solution of magnesia vitriolata.

On November the 10th, Dr Clubbe again met me; the vomiting and pain had returned violently, and the pulse was 110; another opiate plaster was applied to the pit of the stomach and a draught, with five grains of ammonia, and three drops of tinctura opii, was taken every four hours; no benefit, however, being derived from this plan, brisk purgatives were ordered the following day, and as soon as the bowels were completely evacuated the symptoms subsided.

It is worthy of remark, that during the whole course of this disease, which was of six months duration, nothing afforded so much relief as purgatives. I was under the necessity of exhibiting them every third or fourth day, for, when longer delayed, distention, flatulence, sickness, vomiting, and extreme pain invariably recurred, and were as certainly removed for a time by their use. The fæces were, in general, natural in their colour, and had always their due portion of bile; they were neither fetid nor acrimonious, and the urine was, during the greater part of the disorder, nearly of an healthy appearance. A torpor of the intestinal canal, however seemed to exist, and no advantage was derived from the constant use of *laxatives*, the intervention of brisk purgatives being essential to relief.

From the 10th of November to the 23d, the symptoms were nearly stationary; the pulse was about 96 in the morning, and 108 in the evening; but no rigor or chill, or regular paroxysm had been experienced: the tongue was foul, the breath fetid, and extremely sour; little pain was felt, except when lying on the left side; she slept tolerably well, but the appetite was greatly impaired, and emaciation proceeded rapidly. Every possible means of removing irritation, and correcting acidity were employed; lime water, the alkaline mephitic water, and the decoctum cornu cervi were alternately used for common drink, and the testacea, alkalies, &c. &c. combined with various bitters, and tonics, vegetable and mineral, were tried in vain; purgatives were the only things that afforded any assistance.

Another consultation was requested on the 23d, and we agreed to try the effect of a diet of asses milk. On again examining the abdomen, though the patient was greatly reduced in bulk, no tension, tumour, or schirrosity of any viscus could be discovered; no symptom of any absorption of bile had occurred; there was no discolouration of the skin, no uneasiness on the right side, nor was the liver felt below the margin of the thorax, neither had there been the smallest indication of suppuration or hectic fever.

Better than a pint of asses milk was taken daily for four days, which, at first, sat well upon the stomach; the pulse dropped to 88, and the strength seemed to encrease; but, at the conclusion of the above period, it turned completely acid shortly after being drank, and it was therefore relinquished for a small quantity of solid animal food for dinner, and a strong decoction of sarsaparilla, with lime water, was ordered every four hours.

This slight appearance of amendment was speedily followed by an increase of the pulse, which rose to 120; and, on December the 6th, the vomiting returned almost incessantly, with great pain at the scorbiculus cordis, and in the left side. The effervescing draughts were repeated, and blisters were applied to the region of the stomach, and to the side, and the bowels were opened by magnesia vitriolata. The symptoms were, as usual, mitigated by this plan, and the vitriolic acid, and afterwards the nitric was liberally ordered, with a view, from their tonic action, of promoting digestion, and therefore of palliating acidity, but without effect.

The pulse continued to fluctuate between 96 and 120, until December the 16th, when a return of excruciating pain, under the left spurious costæ, occasioned the pulse to mount to 136. The pain extended to the scorbiculus cordis and umbilical region, and gave rise to a spasmodic affection of the diaphragm. Doses of magnesia vitriolata were given every three hours, and a strong volatile opiate liniment was rubbed into the side. The pain was relieved in about an hour, and the symptoms subsided within their usual range soon after motions had been obtained.

As nothing, however, which had hitherto been given, had produced any permanent good effect, I proposed to Dr Clubbe, on December 21st, the introduction of mercury into the system by friction; to this he readily assented, but as the family expressed a wish for further advice, and Dr Maclean of Sudbury, was mentioned, we postponed the trial until Dr Maclean's arrival, which was fixed for the 23d.

After a retrospection of the series of symptoms, and of the medicines and means which had been employed, Dr Maclean united with us in thinking, that, with the exception of mercurial friction, every thing had been done, which was likely to afford relief; he therefore urged the immediate adoption of the mercurial plan, and half a drachm of the strong ointment was ordered to be rubbed into the interior part of the leg and thigh, night and morning; pills composed of aloes, myrrh, vitriolated kali, and calomel, were directed to be taken occasionally, and a volatile opiate liniment to be applied to the left side, which was still painful, and accompanied with a sense of soreness under the spurious costæ, when pressed with the hand.

With regard to the seat of the disease, we differed considerably, whether the orginal cause of derangement had occurred in the stomach, colon, liver, omentum, or spleen, was canvassed at great length; Dr Maclean was inclined to consider it as a liver case, and that the left lobe was the seat of the disease; in this supposition, however, we entirely differed from him; but such had been the peculiarity and intricacy of the symptoms, that an absolute decision was not not only difficult but presumptuous. As we perfectly agreed, however, in the means to be adopted, the pathology was rendered of little consequence, and I shall therefore proceed to enumerate what was the precise state of our patient's symptoms at this period of her complaint.

The emaciation had gone on rapidly, and Mrs Newman, who, as remarked before, had originally been very corpulent, was now extremely thin and reduced; she was confined to her bed, and only able to sit up in it for a few minutes to take nourishment, which, in very small quantities, she kept down without much uneasiness. The pulse was about 100 in the morning, and 110 in the evening, weak, and its frequency apparently the consequence of mere irritation; for no rigor, chill, colliquative perspiration or diarrhœa, no one symptom, indeed, of hectic fever or suppuration, had supervened. A vomiting of porraceous bile recurred every second or third day; the stools, when procured by purgatives, for without assistance no evacution ever took place, were of a dark appearance; the urine was somewhat high coloured; the skin, as had been the case throughout the whole disease, was dry and harsh; the tongue foul, the breath fetid, much flatulence, and the acidity in the primæviæ great. Upon strict examination no tumour was discoverable in the abdomen, though Dr Maclean thought a little hardness was perceptible to the finger on the left side. The pain of that side frequently extended to the epigastric and umbilical regions; a total inability still existed of lying on it, and sleep was broken and disturbed, but except when the pain was excruciating, the breathing was calm and easy.

In about twelve days a very gentle ptyalism was produced, which continued for a week, and than gradually subsided. The pulse during the action of the mercury was accelerated, but no other effect was induced; the pain, and the necessity for purgatives every second or third day, continuing as usual, and on the total cessation of the mercurial agency, the symptoms were, with the exception of increased debility, exactly what they had been previous to the application of the ointment.

On January 10th 1806, I proposed to Dr Clubbe a trial of the cicuta, which, in the form of a saturated tincture, was taken, for some time, in a strong decoction of bark and sarsaparilla, but without any good effect.

On the 13th of this month a violent pain seized the left ancle, which was shortly transferred to the left knee, and in a few hours the leg and thigh of that side began to swell, and, in 24 hours, were more than double the size of the other limb; the pain, and the frequency of the pulse, which had risen to 140, somewhat abated on the increase of the swelling, which appeared to be the consequence of lymphatic effusion. There was no inflammation on the surface, but the lymphatics on the interior of the thigh were hard and enlarged. I immediately opened the bowels by an active purgative, after which an opiate was given; stimulating fomentations were assiduously applied to the swelled parts, and, on their removal, a volatile opiate liniment was used.

During the violence of this attack, little or no pain was felt in the side or stomach, but on the 16th, the sickness vomiting, and pain under the spurious costæ returned in an aggravated form, these were mitigated by a blister, and the effervescing draughts; and the lymphatic swelling, by the daily use of the fomentations and volatile liniment, began gradually to diminish. Bitters, and tonics, and steel, combined with the effervescing materials, were taken frequently.

On the 28th of January, the pain, which had for some days been greatly mitigated in the side, was felt acutely between the cartilago ensiformis and umbilicus; a blister was immediately applied to the part, and an opiate given in her usual tonic draught. In the morning of the 29th she was perfectly easy, and Dr Clubbe meeting me that day, we advised an issue to be opened on the inside of the left knee, with a view to accelerate the diminution of the effused fluid.

In the month of February, the symptoms preserved nearly their usual routine; the pain of the side occasionally, but not permanently, severe; the sickness, distension and vomiting certainly returning with violence, if the purgative was deferred beyond the third day; emaciation and debility encreasing, yet no tumour or hardness discernible in the abdomen; stools and urine of their natural colour; no hectic symptoms, tongue cleaner, acidity in the stomach great, but the breath not so fetid; has lived for a considerable length of time on beef-tea, gruel, jellies &c. taken frequently in very small quantities; sleeps at night for some hours, but the total inability of lying on the left side continues; the swelling of the left limb has nearly subsided, though it had at one time, however, extended over the left hypochondriac region, and was removed by fomentations and volatile liniment; the skin clear and free from any morbid tint; and has taken, during this month, various preparations of bark, bitters and antacids.

About the middle of March, in consequence of taking a very strong decoction of cinchona and quassia with vitriolic acid, the appetite and strength seemed to increase, and the pain of the side had not been felt for several days. She was able to lie upon her couch for eight hours, and at length, after a week's apparent amendment, to sit an hour in the erect posture, with a pulse reduced to 90.— These flattering symptoms, however, soon vanished; the sickness, vomiting and pain returned with as much violence as ever, and the pulse rose to 130; a purgative, as heretofore, mitigated the symptoms, but, from this period, no hope, even of temporary amendment could be expected. With a view, however, of ascertaining what effect a purulent discharge from the left side might produce, a seton was introduced immediately under the spurious costæ; it produced, however, excessive irritation, and though endured with great patience, until some evacuation had been effected, no relief was obtained, and it was therefore withdrawn.

The debility, languor, and emaciation, were, at the commencement of April, very great, and cordials, both in diet and medicine, were frequently necessary. The pulse was about 116 in the morning, at night 120 or 125, and sometimes 130, and very feeble.

About the 7th or 8th of this month, Mrs Newman suddenly complained of a swelling at her stomach, accompanied with a sense of great fulness and distension, and, on examination a day or two after, I found a considerable tumour, reaching from the cartilago ensiformis to the umbilicus; it was perfectly circular, prominent, and well defined, and there was a distinct fluctuation. I ordered poultices to be applied every two hours to the part, and requested a consultation, as I deemed an operation essentially necessary as soon as it could be performed with safety. Dr Clubbe met me on the following day, but the tumour had then subsided to half its former bulk, and though a fluctuation was still very evident, we thought it proper to postpone the introduction of the trocar until the swelling should again acquire its former bulk,—The poultices were continued, and on the 17th, when we met again, the tumour had risen even beyond its former dimensions, and the fluctuation was perfectly evident. Its bulk and pressure so affected the stomach, that not a tea-spoonful of any thing could now be retained, even for a minute, and as the anxiety and oppression were rapidly proceeding, the evacuation of the contained fluid was the only means in our power of diminishing suffering, and protracting life. Having obtained, therefore, the consent of the patient, who had resolution adequate to the endurance of any thing which might be deemed necessary for her relief, Mr Bunn, her surgeon, introduced a trocar into the most depending part of the tumour, and drew off two pints of a fluid, resembling in colour thin diluted coffee; it was perfectly free from fœtor, and slightly saline to the palate; when diluted with water it had the appearance of pale Lisbon wine; and when boiled, exhibited a portion of coagulable lymph; it seemed indeed, in every respect, to be merely the serum of the blood, which, by long separation from the fibrine, had acquired its present appearance.

Mrs Newman bore the operation extremely well; and, without any increase of faintness or languor, she was able, almost immediately after the fluid had been withdrawn, to retain the usual quantity of food upon her stomach, and she passed the evening nearly free from pain, and had some sleep. On the morning of the succeeding day, however, there were present symptoms of much exhaustion; the pulse was very feeble and quick, and the countenance assumed a cadaverous aspect; the breathing also was very short, and sometimes laborious, yet she felt no pain, though it became very evident, that death was approaching with rapid strides. This event, indeed, took place early on the morning of the 19th, without the smallest struggle or appearance of pain.

As soon as I was informed of Mrs Newman's decease, which was about nine o'clock in the morning of the 19th, I thought it necessary, for the satisfaction of all parties, to lose no time in obtaining the consent of the family, that the body might be opened; the request was immediately granted, and Mr Bunn and myself, together with Mr Mudd, an intelligent medical gentleman of this place, began the dissection at twelve, and after minutely examining the different viscera, for nearly four hours, I drew up, on the spot, the following statement of the morbid phœnomena.

Appearances on Dissection.

1. The coats of the stomach were nearly three times thicker than usual; its cavity reduced to about one third of the customary size, the rugæ very distinct; the cardia and pylorus in a sound state; but a little above the sphincter pylori there was a quantity, nearly an ounce, of cheese-like matter in a granulated form, adhering to the external coat of the stomach, but not constricting the passage into the duodenum; there were no traces of inflammation either on the inner or outer coat of the stomach.

2. The omentum was greatly enlarged, and entirely covered with cheese-like matter in a granulated state; considerable portions of its substance were thickened to a full inch in depth, and were altogether formed of the same caseous material, which might be rubbed between the fingers into a paste, but somewhat gritty to the touch. The omentum was depressed far below its usual situation, and strongly and extensively adhered to the peritonæum and intestines.

3. The spleen was one mass of disease; half of its proper bulk appeared to be absorbed or wasted, and the organization of the remaining part completely obliterated, and in a state approaching toward solution; the peritonæal coat of its internal concave surface, was dilated into a very large cyst, with blood vessels of an enormous size, ramifying on its inferior part, or fundus. The

upper part of the cyst strongly adhered to the whole under surface of the stomach, and the lower part to the upper edge of the great arch of the colon. The diameter of the cyst was full six inches, and it contained more than a pound and a half of dark, dense, coagulated blood, several portions of which, nearly as large as a man's fist, floated in a brown coloured serum, of which there was better than a pint. We have already related that two pints of a similar fluid had been drawn off, previous to death, and the capacity of the cyst, was such as to admit of considerably more than four pints. The bottom and sides of this bag were covered about an inch deep, with a black tenacious matter of the consistence of congealed honey, and when examined with the fingers, was found interspersed with masses of the same caseous substance, which covered the omentum. The great size of the cyst pressed the stomach high up, and close to the diaphragm, and the arch of the colon was, from the same cause, thrust down many inches below its natural situation, and was contracted in that part of its course to the size of a small intestine. There was no communication from this cyst with the liver, stomach, or intestines, and there was no fœtor, and no pus in any of the diseased viscera.

4. The liver was pressed high up by the bulk of the cyst, its lower edge being considerably within the margin of the thorax. It was perfectly sound and healthy in all its lobes, not a mark of disease appearing, either externally or internally. It was rather smaller than usual in size, and the left lobe could not be said to pass into any part of the left hypochondriac region, owing probably to the magnitude of the cyst. The lobulus spigelii was also in the most perfect state, and the gall bladder was distended with bile, and of its proper colour.

5. The intestines, with the exception of the arch of the colon, were nearly free from disease, but compressed into a very small compass, and adhering to the omentum. The blood vessels upon the arch of the colon were turgid, and part of the mesocolon was as much diseased as the omentum, being thickly interspersed with cheese-like matter in a granulated form. The arch of the colon was so reduced in bulk, and compressed, that when the body was opened, it projected like a chain of very small bladders.

6. The kidneys, uterus, and bladder, were in a sound state.

7. The thoracic viscera were also perfectly sound.

Case

V.

Case of successful Amputation of the Uterus. By JOSEPH CLARKE, M. D.—Dublin.

In the month of June, 1803, I was consulted by a very young lady, who had been about eleven months delivered of her first child, and whose health had since been in a most precarious state.

The history that she gave me, was, that she had been attended in her lying-in by a midwife, who boasted of having received her instruction in the Lying-in Hospital. Soon after delivery, she was affected with severe pains, and excessive floodding. While she was fainting, and supposed to be in great danger, her obliging attendant ran to the house of a neighbouring physician, who prescribed something which afforded temporary relief. By wearing bandages to support what was supposed to be a falling down of the womb, and by taking strengthening medicines, this lady became tolerably well, insomuch, that she was once able to walk to a neighbouring market to buy dinner for her family; and, on reflection, she thinks this the only occasion, during eleven months subsequent to her delivery, on which she could say she was well.

Soon after this event, she went from Dublin to a distant part of the country, and became subject to very profuse uterine hemorrhage, for which she took the opinions of many medical men, and swallowed drugs in large quantities, with very little effect. Some of her medical attendants in the country told her the womb was inverted, but made no examination to ascertain the fact.

Under these circumstances, I did not hesitate to propose an examination by the touch, to which, in her reduced and bloodless state, she made not the slightest opposition. I found a round fleshy tumour, hanging low in her vagina, about an inch and half, or two inches from the os externum. On the anterior part of this tumour, I thought I could perceive the os tincæ in a dilated state; but on the posterior part nothing like it could be distinguished.

Not doubting that this tumour was the cause of her distress, I desired to have a consultation with a surgeon of eminence next day, adding, that I rather suspected the tumour to be of the polypous kind. Having stated the circumstances as they occured and appeared to me, the surgeon, after examination, thought my conjecture about the nature of the disease most probable. Some decisive effort was necessary to rescue the patient from impending destruction. We agreed to pass a ligature on the tumour, in the usual manner, as in cases of polypus. During

ing the first, and indeed many succeeding nights and days, it gave great pain, occasioned severe vomitings, and much watchfulness. We gave opium freely, and kept the bowels open with glysters. The patient was very heroic, and determined, if possible, to get rid of what had so often reduced her existence to the lowest ebb. After tightening the ligature frequently, as far as we judged prudent, at the end of a fortnight we took it off, in despair of success by this mode of proceeding; still, however, giving her reason to hope, that after so much pressure, it might fall by an effort of nature.

When released from pain and sleepless nights, her health mended rapidly; the extensive uterine hœmorrhages ceased; she bathed in the open sea, and considered herself getting quite well, when, in consequence of some extraordinary effort, a tumour shot suddenly out at the os externum, of considerable size. She returned to town, and it was now manifest the tumour we had inclosed in ligature was the uterus, then partially, and now completely, inverted. On a further consideration of all the circumstance, and encouraged by the event of a case recorded in the Edinburgh Medical Annals for the year 1799, by Mr Hunter of Dumbarton, we agreed on the propriety of amputating the prolapsed tumour.

Before proceeding to a step so unusual, we deemed it prudent to submit our opinion to the consideration of two of our professional brethren. Their opinion coincided with ours; and, on the 18th day of November, a ligature of small tape was tied tightly, almost an inch above where our former ligature had made its indentation, and, with a scalpel, the tumour was removed before the patient had an idea that the operation was begun. Her recovery was rapid and complete. In six weeks she was able to walk nearly as well as ever; these were her own words. Her husband died soon after her recovery, so that I have had no means of ascertaining any circumstances relative to their subsequent cohabitation. After three years absence from town, she called on me in the end of March of this year, is grown fat, and altered so much in her appearance, that at first I did not recognize her. She complained only of bad appetite, and that she had never *changed since*, which I assured her, was no uncommon occurrence after such operations, and I begged of her not to be anxious on that score, so long as her health was reasonably good.

This case seems to me, to justify several important conclusions.

It proves, that the partially inverted uterus will sometimes bear considerable pressure from ligature, without producing fatal effects.

It affords strong probable evidence, that such pressure is capable of restraining those violent and wasting discharges of blood which have hitherto, in general, proved, sooner or later, fatal in inversions of the womb.

It tends to confirm the propriety of Mr Hunter's bold practice, who, unaided by consultation, and without encouragement from modern authors, ventured successfully to deprive the female constitution of one of its most important organs.

And, lastly, It suggests, *most forcibly*, the necessity of examining accurately the state of the os tincæ, whenever excessive hemorrhage and pain supervene speedily to the expulsion of the secundines.

Inversions of the uterus, and especially if partial, when speedily discovered, are generally reducible. I have myself seen, in consultation, one case of this kind; and practical writers contain many such. Keeping this melancholy example steadily in view, may all practitioners, in future, make enquiry precede prescription.

I offer neither excuse nor apology for my erroneous first judgment in this case. On the contrary, I trust it will increase my claim to the gratitude of the liberal reader. The patient would probably not have submitted with so much fortitude, nor should we perhaps have applied so much pressure, had we been certain of the nature of the tumour. The surgeon who regulated the ligature, is, in my opinion, entitled to much credit, for having proportioned so well his efforts to the patient's strength. To this hour, I believe, our patient thinks she was only deprived of a polypus, and it would be an act of very wanton cruelty to undeceive her.

Conceiving the circumstances of this case to be important and instructive, I thought it a duty to endeavour to prevent them being lost to the medical world.

Rutland Square,
DUBLIN, 27th June, 1806.

To Dr Clarke's case, the following extract from Voigtel's instructive Manual of Pathological Anatomy, forms an important addition.

" Examples of the extirpation of the uterus, either from ignorance or as a surgical remedy are not rare. Many of these terminated unfortunately (*a*), but many succeeded. Thus Wolf (*b*) amputated

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(*a*.) *Peyer*, Misc. Nat. Cur. Dec. ii. An. i. Obs. lxxxiv. p. 193. *Bartholini*, Hist. anat. rar. Cent. ii. Obs. xci. Tom i. p. 334. Journal für Geburtshelfer, 1787. St. I.

amputated a prolapsed uterus with the happiest consequences. Volkamer (*c*) relates a similar example. Figuet (*d*) tells of an ignorant accoucheur, who mistook an inverted uterus for the child's head, and tore it quite away with the crotchet. Faivre (*e*) put a ligature around a prolapsed and inflamed uterus, which could not be reduced, and was almost gangrenous; on the 27th day it separated, and the woman recovered speedily. Wrisberg (*f*) relates an example, in which, an ignorant midwife, after a natural birth, cut away the uterus, which she had drawn out, yet the woman survived. Laumonier (*g*) describes the successful amputation of an inverted uterus, which was mistaken for a polypus. Hunter (*h*) cut entirely away an inverted uterus, and the patient was cured in a month, without any bad symptom. Several other examples of excision of the uterus, without proving fatal, may be read in Schenkius (*i*), Rousset (*k*), Moinichen (*l*), Slevogt (*m*), Dietrich (*n*), Zwinger (*o*), and Cavallini (*p*).

VI.

Case of Chorea St Viti cured by Purgatives. Communicated by GEORGE KELLIE, M. D.

THE account given of this curious disease by Dr Hamilton, has exposed its pathology in a new point of view, and laid the foundation

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(*b.*) Miscell. Nat. Cur. Dec. ii. An. ix. Obs. xciv. p. 161.

(*c.*) Ibid. Dec. i. An. vi. Obs. lxxiii.

(*d.*) Journal de Medecine, Tom. xli. Janvr, p. 40.

(*e.*) Ibid. Tom lxviii. August. p. 195.

(*f.*) Commentatio de uteri mox post partum naturalem resectione non lethali. Gott. 1787.

(*g.*) In Fourcroy Medec. eclairée. Paris, 1792. Tom iv.

(*h.*) Duncan's Annals of Medicine for 1799.

(*i.*) Lib. iv. Obs. ccciii. sq. p. 711.

(*k.*) Hysterotomotocia Basil, 1688, p. 100.

(*l.*) Obs. Med. Chirur. cum Annot. Lanzoni Dresd, 1691. Obs. iv. p. 17.

(*m.*) Diss. de utero per sarcoma ex corpore extracto, postmodum resecto. Jenae, 1700.

(*n.*) Rede von einem wahren Vorfalle und glücklicher Absetzung der Gebährmutter. Regensb. 1745.

(*o.*) Neue Sammlung für Wündärzte, St. iii. p. 218.

(*p.*) De felici in quibusdam animantibus uteri extractione, Flor. 1768.

foundation of a more rational and more successful practice, than that generally pursued by physicians. The evidence brought forward by Dr Hamilton, in support of the utility of purgative medicines in chorea, is so complete and satisfactory, that I should have deemed it quite unnecessary to record any observation of my own, or case in favour of the practice, which might have occurred since the publication of his valuable book. A higher authority, however, and stronger testimony, because much less suspicious, in favour of any new method of treating a disease, is that which may sometimes be deduced from the history of cases related by preceding writers, who, unbiassed by any relative view, have deviated as it were accidently from the usual routine, and stumbled on that method, which experience afterwards establishes as a rule of practice. This is a kind of evidence, which Dr Hamilton has not rejected, which he has very properly produced when it could be found; and in this disease, he has even endeavoured to extort it from the practice of Sydenham. I cannot therefore refrain from offering to the Edinburgh Medical and Surgical Journal, the following very interesting illustration, which I have met with in a clinical work not much known in this country, the Ratio Medendi of Maximillian Stoll, the successor, I believe, of the better known De Haen.

" A young man of 16, was on the 23d May 1779, affected with sickness and giddiness of the head, being in other respects well enough. On the following days, the head was still more affected, and he complained besides of heat, and a sense of opression about the præcordia, distention of the hypochondria, subacid eructations, nausea, retching, feverishness, a kind of rheumatic pain, with a sense of prickling of the left arm, immediately followed by startings and momentary convulsions of that extremity. His nights were disturbed.

26th May. The gesticulations and motions of the left arm more and more irregular, and less obedient to the will. The other symptoms as before.

27th — Became irrascible. The left leg also affected, and its motions irregular. The other symptoms worse.

28th — The tongue covered with small pustules. The mouth drawn somewhat to the left side.

30th — A few pustules have also appeared on the face: All the former symptoms aggravated. He was blooded both on this and the following days, without experiencing any relief. Nights very restless.

" With these symptoms, he was received into the hospital on the 1st June.— The tongue was white; and the belly was, as it had been all along, very costive. Some opening saline medicines being premised, he had an emetic—what he vomited was bitter. The fever and uneasiness of the præcordia disappeared, and the limbs became steadier. Purgative medicines were afterwards given; and thus by the 7th of June, he was so far cured, that he complained of nothing but the rheumatic pain of the left shoulder and arm. A blister was applied between the shoulders, and a diaphoratic draught was administered. But on the following day, without any obvious cause, he began to weep, and talk very foolishly, and every limb, the trunk of the body, the head even, and the muscles of the face, were affected with inordinate gesticulations. The disease advanced under the use of the fetid gums, and became still worse after the administration of camphor. Now the mouth was clammy and foul, and the teeth covered with sordes.

"At length the symptoms were relieved by saline laxatives, but the disease was not cured.

"The extract of belladona was tried, but occasioning vertigo, headach, and delirium, it was omitted, and then it was thought best to purge the bowels with rhubarb, neutral salts, and the oxymel of squills. He passed slime, and one lumbricus, and he said that he had formerly discharged others. The belly was moderately but daily purged; and thus his tongue became clean, his limbs strong, and the other symptoms disappeared, so that by the end of the month, he returned home cured."

"Another case of Chorea S. Viti I have treated in the same way. The patient was a girl subject to rheumatism, which being neglected, terminated spontaneously in chorea; she was cured by solvents, eccoprotics, rhubarb, arcanum duplicatum, (sulphate of potass) and oxymel scillicum—Stimulants, belladona, the flowers of zinc, and electricity, have appeared hurtful in that species of chorea, which arises from pituita, and worms of the intestinal canal."

M. Stoll—Ration. Medendi, pars 3tia. page 219.
Observat. vii. *and* viii.—*Edit. Paris* 1787.

No examples can be more decisive than these cases, and none surely could more happily illustrate the pathology and treatment of chorea recommended by Dr Hamilton. For first, we remark, as precursors of the disease, symptoms of disordered and loaded bowels, heat or oppression of the præcordia, acid eructations, nausea and vomiting, and costiveness; next, the inefficacy of antispasmodic and stimulant remedies; then relief from laxatives, and disorder from narcotics; and lastly, the speedy completion of the cure, on the administration of medicines evacuating the bowels moderately, but daily.

Leith, 10th July 1806.

VI.

Letter on the Application of Galvanism, in the Cure of Congenital Deafness. By ALEXANDER VOLTA, Professor of Natural Philosophy in the University of Pavia.*

I FORMERLY wrote to you, that the many cases related of deaf and dumb persons, who have received their hearing, by means of the Galvanic pile, especially at Tevers, in Westphalia, with the ingenious apparatus, contrived and employed by Mr Sprenger, were more than sufficient to convince the most incredulous, that its use is by no means to be neglected, but merits, at least, to be tried by others.

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* See Annali di Chimica e Storia Naturale, di L. Brugnatelli. Tom xxi, p. 200, 8vo. Pavia, 1802.

This I myself accordingly resolved to do, although my doubts exceeded my hopes, and, for the last 15 days, I have been employing Sprenger's method, in our Orphan Hospital, with a girl of 15 years of age, who was born deaf. I cannot say that hitherto I have been very successful; but it is not to be denied, that she has so far acquired the sense of hearing, as to perceive various sounds, even though not very loud, and at the distance of some feet. It was observable, that she began to hear on the commencement of the third day, that is, after it had been applied eight or nine times to each ear, for ten minutes at a time, in shocks repeated every second. On the succeeding days, some slight progress has been observed. It is curious, that obtuse and hollow sounds, such as beating on an empty wooden box, or clapping the hands, were those she first perceived; a fact also noticed in the experiments made at Tevers; but for some days past, she also hears other sounds, such as various instruments of music, the ringing of a bell, the human voice, but apparently very obscurely, confounding often one sound with another. I shall continue for 15 days more to galvanize each ear at least four times a day, in the same manner; that is, by applying a small button at the end of a metallic wire, connected with the positive extremity of the apparatus, alternately for a minute, to the tragus, for two, to the meatus externus, and for another minute behind the internal ear to the mastoid process, and giving frequent shocks, by touching every second the negative extremity with a metallic rod, held in the moistened left hand, when the right ear is galvanized, and vice versa. The experiment will thus last a month, the longest time employed by Sprenger in the worst cases of deafness; but I have great doubts of succeeding as well, for it has been repeatedly published, that more than 40 cases have been cured by him, besides various other cases by other practitioners. I am doubtful that my patient will be enabled to discriminate articulate sounds. She has certainly gained something, as she did not perceive the strongest sounds with either ear, and she now hears moderate sounds, particularly with the right; but she is still far from that delicacy of hearing, which is necessary for hearing the human voice little raised, and to distinguish the articulation of words sufficiently for learning the art of speech. But even if it were possible to attain that fineness and perfection of hearing, we know not how long it would last, since we are told in the history of the prodigious cures performed in Germany, that several of them, though not all, have, after a time, relapsed into their original deafness; and of the others, we know not if many, or few or any of them, have learned to speak, since we have had no account of them posterior to the month of June, when a sufficient time had not elapsed after their cure. I am told, that for some time past, they have been making experiments at the deaf and dumb institution at Paris, but I know not in what manner, or with what success. In Germany, where the experiments have been made in so many places, and by so many individuals, and where there have been published so many cases, and so many valuable works, on the application of Galvanism, they boast of many other cures of weakness of sight, even of amaurosis, of paralyzed limbs, &c. and it is curious, that some have acquired the sense of smelling, which they previously wanted entirely, by merely galvanizing the ears in the manner described. But this is not wonderful, since almost all the internal parts of the head feel these shocks, and are penetrated by the galvanic current, and even many of the external parts, as is evident from the contractions of the temporal and zygomatic muscles on each shock.

VII.

Explanation of a supposed Case of Small Pox, after Vaccination. By Henry Johnston, Fellow of the Royal College of Surgeons, Edinburgh.

At a time when the progress of vaccine inoculation is threatened with some interruption and disrepute, particularly about the Metropolis, the following statement may perhaps not be unacceptable. It appears to me useful in this respect, that it points out the great propriety of medical men using every endeavour in tracing the history of those cases where it is alledged that vaccination has not proved a preventive of small pox.

Some time ago I inoculated the child of a gentleman in this city, with vaccine matter. The infection took place, and went through the usual course. From the pustule I inoculated the infant of the hired nurse who suckled the child. This also succeeded, but as it lived at two or three miles distance from Edinburgh, I had not an opportunity of seeing it through the whole progress of the affection; however, I was so satisfied with the appearance about the 8th day, that I desired the child might not be brought back again, as it was very inconvenient the doing so. Some months after, I was sent for by the gentleman whose child had been first inoculated, and found the family in a state of great anxiety, in consequence of having learnt, that the nurse's child had been seized with small pox, as well as three other children in the same house, all of whom were said to have had the cow pox. I was requested by the gentleman to visit them, which I readily did, not doubting to find an instance of chicken pox; I found, however, all the children severely suffering under the real small pox, in different stages of this loathsome disease, except the infant which I had vaccinated, which had very few pustules, *and had not been perceptibly sick.* The mother of the other children stated positively, that they all had had the cow pox. As I was about leaving the house, a good deal perplexed and mortified, I accidently inquired who had inoculated the children. This led to a most satisfactory explanation; they never had been inoculated, but according to the mother, had all taken the infection from wearing some article of apparel, belonging to another child under vaccine inoculation. This you know is considered as hardly possible. I now examined more particularly the child whom I had inoculated, and found, that the few pustules upon it were confined chiefly to one side of its face, neck, and one arm, and appeared to me to be quite analogous to the local pustules which take place on the breasts and arms of nurses, when suckling children in small pox; the child having slept constantly in the same bed, and, I dare say, in contact with one of the others. I am persuaded, that if every case of alleged failure of cow pox, as a safeguard against small pox, were traced with care, similar errors to the above would be detected. I assure you the above instance made a considerable noise and clamour in the place where it happened, and I am not sure, that my endeavours to represent the matter in its proper light, and to shew, that the whole circumstances were in favour of vaccination, were successful.

Before concluding, I would leg leave to observe, that the practice of vaccine inoculation, is beginning to be held by far too light; any body is supposed capable of performing an operation so trifling. Every surgeon knows how frequently he produces an inflammation of several days standing with a pustular appearance, without supposing he gives constitutional infection, and security against small pox. I fear such a simple affection of the arm, is too often considered as the real and necessary infection.

I am led to make this observation, from finding my own apprentices, when of very short standing indeed, frequently trying their skill in this way.

Prince's Street,
24th July, 1806.

VIII.

Case of Epilepsy cured by Trepanning. By Henry Coates, of the Royal College of Surgeons in London, and Surgeon to the Salisbury Infirmary.

James Goddard, ætat. 33. a gentleman's coachman, was admitted a patient into the Salisbury Infirmary, July 28th 1804. He stated, that about four years before, as he was driving his master's carriage under a gateway, (not stooping sufficiently), the crown of his head struck against a beam; this at the time was not followed by any other symptoms, than a slight headach for a few days, and an inconsiderable swelling of the part, which soon subsided. Nothing occured to remind him of the accident, till, about a year afterwards, when a small tumour appeared on the part on which he received the bruise, which (to use his own language), continued to swell without much pain, and at last burst. The wound was afterwards dilated by a surgeon, and healed with difficulty in about six months, and he says, that he continued perfectly well for about six months afterwards, when he was attacked with an epileptic fit while on the coach box; and has since had repeated attacks of them at intervals of from a week to a month. He now complains of extreme pain in his head, loss of vision of his left eye, numbness and coldness of the left side, particularly of the foot; his general health and appetite are otherwise tolerably good. On examining the scalp, I perceived several small puffy ulcerations about the centre of the coronal suture, which, on pressure, give him pain. He was directed to take some opening medicine.

July 29th, The appearance of the scalp indicating some further disease, I determined to ascertain the state of the bone, for which purpose I made an incision of about 3 inches in length in an oblique direction, beginning an inch in front of the sagittal suture and running backwards. The bone at the anterior part of the incision was found roughened, and a portion of it about the size of a shilling, porous, with a sinus in the centre, which readily admitted a probe being passed to the dura mater.

My friend Dr Fowler being desirous of seeing the state of the case, and not being able to attend at this time, I deferred attempting any thing further for the present, and the wound was slightly dressed. I saw the patient again in the evening, when he informed me he thought he felt rather less pain in his head, which I attributed to the loss of blood in the operation.

July 30th.—The wound looked very well, and was dressed as before.

July 31st, The wound appeared perfectly healthy, he was free from pain or fever, but said he felt as if he should have a fit before the end of the day. I now determined to remove the diseased portion of the bone, and applied a trephine, the crown of which was sufficiently large to include the whole of it. The operation was tedious from the extreme delicacy of the part, and care required in the use of the instrument. It was, however, completed without accident, and on extracting the bone, its internal surface had an honeycomb appearance. The dura mater was detached, but perfectly healthy. The skin was brought into contact in the manner recommended by Mr Minors, and retained by adhesive plaster, with light superficial dressings. He was put to bed, and an opiate draught was ordered.

I saw him again in the evening, and found him remarkably well, he thought he could see better with his left eye, had scarcely any head-ach, his pulse but little quickened, and his foot much warmer, with more sense of feeling in it.

August 1st. He had passed a very good night, felt quite comfortable and free from pain. I ordered some opening medicines, and to be kept on low diet.

August 2d—Examined the wound, found it very healthy, union by the first intention had in part taken place, and there was but little discharge. It was dressed as before. Nothing occurred worth notice the remaining part of the time he was in the house, and he was discharged the 1st of September, cured.

It is now 18 months since the operation was performed, and I have seen him several times lately; he continues well, and follows his usual occupation; he has had no return whatever of the fits. The numbness and coldness of his left side is quite removed. The vision of his left eye is better, though not quite recovered.

IX.

Cases of Idiopathic Tetanus, with Observations. By C. L. MURSINNA, Chief Surgeon to the Charité of Berlin.*

A SOLDIER of the regiment of Mollendorff, aged 26, of a stout habit of body, the day before his return to the regiment, from a furlough, overheated himself very much while exposed to the burning rays of the sun, by violent exertion at rough field work; in the evening, when dropping with sweat, he exposed himself to a current of cold air, in order to refresh himself, and drunk cold beer to allay his great thirst. After he had spent an hour in this way, he suddenly felt great bodily weakness, and an inability to open his mouth.

He was put into a warm bed, and took some warm beer with ginger. After passing the night sleeping and sweating alternately, he found himself in the morning somewhat easier, but still unable to walk or move his limbs voluntarily. He was, therefore, laid upon a cart, and brought to the garrison at Berlin, the 16th October 1802. I saw him the following morning, in the Lazaretto. The battalion surgeon, Mr Fisher, ordered him elder tea, with spirit of Mindererus every hour, from which he sweated much during the night. In the morning, however, I found the under jaw so strongly drawn up towards the upper, that I could only with difficulty get in one finger between the teeth. At the same time, he complained of difficulty in swallowing, and stiffness in all his limbs. I found all the fleshy parts around the neck, hard and preternaturally tense, so that the patient was quite unable to move his head. The pulse was soft, small, and slow, giving only 65 beats in a minute.

From all these symptoms, it was sufficiently clear, that the disease consisted in a violent asthenia, and that the vital power (or according to the new language, the excitability,) was weakened, or rather, to speak more plainly, the nervous energy was oppressed. Hence arose the great bodily weakness, conjoined with a considerable degree of insensibility of all the fleshy parts; from the same cause arose also the preternatural contraction of the muscles of the jaw, and neck, and of most of the fleshy parts of the body. All these, clearly indicated a deficiency, and partly a total annihilation of the nervous influence on the muscles and vessels, and consequently a paralysis of them. The most urgent indication, therefore, was to excite their action, to remove the paralysis, and lastly, to restore the natural state. The remedies for fulfiling this, must be strong and penetrating, and consequently of a stimulating nature. The more volatile they are, the more easily they penetrate, and the quicker is their effect. According to the best and most accurate experience, all this is accomplished by the internal use of opium, and most effectually, when combined with spirituous remedies.

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* See Neues Journal, für die Chirurgie, Arzneikunde und Geburtshülfe, von *C. L. Mursinna*, Erstes Stuck, 8vo. Berlin, 1803, page 92.

For these reasons, I ordered the patient to take tinctura opii crocata, and spiritus sulphurico-æthereus, mixed in equal parts, every two hours, ten drops for a dose, in water, and at the same time, daily to be put into a warm soap bath for a quarter or half an hour. Externally, I caused all the hard and preternaturally tense parts, about the jaw, neck, and spine, to be frequently and smartly rubbed with a liniment of camphor oil, tinctura opii crocata, and the liquor ammoniæ causticæ.

The 17th, in the morning, the patient was much worse. He had not only not slept any, but passed a very restless night. He complained of an indescribable anxiety which impeded his breathing, and rendered his sufferings unbearable. I found him quite stiff, and all the muscles of his body, more especially those of the neck and spine, drawn together and hard, so that he had not the motion of a single muscle in his power. The head likewise was rigid and drawn somewhat backwards, and the mouth so much contracted, that the teeth touched each other. In a word, the patient was affected by the greatest degree of trismus and tetanus. His face was also red and much distorted, like that of a strangled person.

I ordered 20 drops of the above medicine to be given every hour, and an ounce of the kali causticum to be added to the soap-bath.

All this was given, indeed with difficulty, but faithfully, and in the intervals, as often as possible, water, soup, and wine, were exhibited. The 18th, in the morning, there was no change, which I conceived to be a favourable symptom. For, if this disease does not hourly increase, there is great hope of recovery.

I now prescribed 20 drops of the tinctura opii crocata alone, to be taken every hour in water. Externally I ordered equal parts of camphorated spirits and laudanum to be rubbed into the tense muscles round the neck, jaw, and spine, as often as the patient could bear it; and twice a day, I had him put into the soap-bath with kali causticum.

In the evening, the patient was much relieved. The sweat flowed without interruption from the surface of his whole body; the breathing was free, the anxiety much diminished, and he was able to move his head a little.

Next morning all the symptoms were in their old course, and the patient extremely low and dejected. This was a very natural consequence of an interruption of the medicine. I learned, that no medicine had been given him during the night. I therefore appointed a surgeon to watch during the night, with instructions to give him the medicine every hour, whatever might occur.

In consequence of this, on the 20th, the disease was much alleviated. The sweat flowed very freely, the mouth was so far opened, that a finger could again be easily introduced, of course, the deglutition was also easier, and the head again more moveable. As, for these four days, he had had no evacuation of his bowels, an emollient glyster was given, which produced a motion. After the bath, the patient complained of greater anxiety, and was evidently stiffer and more dejected. The kali causticum was therefore in future omitted, and the soap-bath alone employed. As this relieved all these symptoms, it was employed twice every day as long as it was agreeable to him, which was for the most part about half an hour.

The 22d, he was completely convalescent. He had slept now and then, for the first time, during the night, and had likewise sweated very freely, and with great relief, which he still continued to do. The pulse beat 75 in a minute, soft and full. The hardness of the muscles had remarkably diminished, so that the head could not only be moved freely, but the patient was able to raise himself up without assistance for the first time. The mouth was opened more than an inch, and the deglutition and breathing almost quite natural. He also expressed a desire for food, and he was allowed a good nourishing diet, and wine to be given at intervals, in small quantities. On account of the costiveness, an emollient glyster was again exhibited, which produced a full evacuation.

With regard to the treatment, I did not yet venture to make any change, but ordered him to take every hour 20 drops of laudanum, both day and night; the fleshy parts, especially around the neck and on the spine, were still rubbed frequently with camphorated spirit and laudanum, and two warm soap-baths were employed daily.

From this date, the improvement was daily greater, so that on the 26th, he was able to walk about the ward, and open his mouth almost completely.

I now reduced the laudanum to ten drops, and ordered only one warm bath daily.

On the 28th, the patient was again rather worse, the jaws less capable of being opened, and the deglutition, as well as the appetite, diminished. I prescribed 15 drops of laudanum every hour, with instant relief, and at last perfect recovery. From the 1st November, I diminished the dose of laudanum again to ten, and on the 3d, to five drops.

On the 6th, I omitted the laudanum and baths entirely, and ordered him a decoction of one ounce of bark, and four drams of valerian, with vitriolic æther. After he had used this for some days, he was dismissed the 10th, completely cured. He is at present perfectly well, and does his duty as usual.

A Girl, 26 years of age, of a good habit of body, who had been hitherto healthy, stout, and of a chearful disposition, was taken suddenly ill on the 10th April 1803, and at once, so severely, that she could not remain out of bed. The scarlet fever having been very prevalent here during the winter, and the girl complaining especially of her throat, caused the family in whose service she was, to apprehend this dreadful disease, and they therefore sent for me immediately. I instantly perceived, that the girl was affected with trismus and tetanus. The mouth was drawn so close, and at the same time so painful, that a spoon could only with difficulty be brought in between the teeth. The muscles of the neck, also of the breast and spine, were stiff, and strongly contracted, of course, the head and the whole upper part of the body were perfectly immoveable. The pulse, in this case, was feverish, which in these diseases, at least in the beginning, has seldom been observed.

In order to discover the cause, I inquired into the mode of life, and particularly, into what she had been doing the preceding days. And I then learned, that the day before, she had scoured the rooms of the house, with open windows and doors, and had perspired very much. To avoid this, and at the same time to rest herself, she had laid herself several times over the window, though only for a quarter of an hour at a time, and again resumed her work with greater vigour.

It was sufficiently clear, from this account, that she had been very much heated after severe bodily exertion, and as she had exposed herself during the breaking out of the sweat to a cold stream of air, that she had caught a severe cold. In the course of the same evening, she felt herself weakly and sick, and had therefore gone earlier to bed than usual, without any supper. From her great weariness, she had indeed got a little broken sleep, but became still worse, and awakened in this wretched state.

As I distinctly recognised this disease, and was acquainted with its proximate cause, I concluded, both from its origin, and all appearances, that it had a very great resemblance to the case just described; therefore, that it belonged to the same genus, and of consequence, that it could be cured by the same means. I therefore prescribed four ounces of cinnamon water, a dram of Sydenham's laudanum, and one ounce of syrup of white poppies, of which she was to take a table spoonful every hour, and likewise ordered water and white French wine for common drink.

In twelve hours, after this mixture had been all used, the patient felt herself so far easier, that she could move the head a little, and could open her mouth some lines wider. The sweat flowed in great quantity from the whole surface of the body. The more this annoyed the patient, the greater hope I thence conceived of her recovery, as in this disease I had always found so violent a sweat alleviating and salutary. I therefore exhorted her to patience, and to a light but equable covering, and positively forbid the changing of the linen of the bed.

I continued the same medicine day and night, and gave her as much strong soup with wine and water, as could be got down.

The 3d day, I found her in every respect worse. The head was more immoveable, the deglutition more difficult, and the anxiety insupportable, although the sweat flowed as before, and an exposure to cold could not well be suspected. However willing I might have been to employ the warm bath, yet it was impossible in this situation. The appetite was quite gone, so that nothing but fluids could be given, and that with difficulty, and partly by force, as the patient began to despair, and would take nothing more. The pulse was soft and quick, and between 90 and 100. The belly was, as usual, costive, and the urine flowed sparingly, and with great pain. These are the effects of the opium, which under these circumstances, at least at first, always follow, and need not alarm the physician. In order to promote the flow of urine, a decoction of chamomile flowers was applied very warm over the pubes, and the whole abdomen frequently rubbed with oil, camphor, and laudanum. This had the effect, as in similar cases, to make the urine pass easily, and without pain.

The relapse proceeded merely from the medicine having been omitted during the night. In the morning, also, she could only be induced to take it, from the fear of being sent to the hospital. Being now unable to swallow without great difficulty, and having a great aversion to every thing sweet, I made her take every hour, five drops of laudanum in white wine. This was given her day and night, by a careful nurse, and in the intervals, as often as possible, alternately, strong soups, wine, and also beer.

Externally, the camphorated spirits with laudanum were rubbed into the muscles of the neck and spine.

Next morning, the pains were more bearable, and all the symptoms easier, but the aversion to all medicine, and even to wine, was extremely great. We could only induce her to take the medicine every two hours. The consequence was very striking and convincing. Such violent anxiety followed during the night, that her end was expected every moment, therefore all medicine was left off, and only a little water with difficulty poured down. In the morning, I not only found her quite stiff, and every limb immoveable, but the mouth also firmly drawn together, every muscle of the face distressed, and the anxiety insufferable.

As she had had no evacuation during this disease, I now ordered her a glyster of decoction of chamomile with honey, which procured a copious stool, with evident relief. Immediately after it, I ordered her to take every hour, ten drops of laudanum in a little Madeira, and a tea spoonful of the latter to be poured in in the intervals. This was done most accurately, though it could, with difficulty, be introduced, and with still greater difficulty swallowed. Towards evening there was an evident change. The anxiety was much diminished, as also the stiffness of the whole body, and the mouth could again be opened an inch. The sweat flowed from the whole surface of the body. As the deglutition was also much easier, the medicine and the wine were continued during the night, without interruption. Although the patient had slept none during the night, yet I found her so changed in the morning, that I declared her convalescent. She was sitting in bed, all the limbs were moveable, the mouth fully open, and the pulse natural. From this moment, she had a return of appetite, and a great desire to leave her bed. The first I allowed her to gratify sufficiently, but the latter I opposed, because she still sweated extraordinarily, I dreaded her catching cold, and accordingly kept her still in bed, although less covered. The last medicine was now given every two hours.

This night, for the first time during the whole disease, she enjoyed a refreshing sleep for six hours, and, in the morning, she was quite well. I then ordered a decoction of bark, and a good nourishing diet. In a few days she was quite restored to her natural state, and she still enjoys steady good health.

About the same time, I was called to a man, who was attacked by similar symptoms. He was 40 years old, and had hitherto, for the most part, led a healthy life. He now complained very much of a difficulty in swallowing, and an inability to open his mouth. Except these, he had the full use of all his limbs, a natural pulse and appetite: he only felt himself very weak, and in very bad humour, and the surface of his whole body was cold.

After the most accurate enquiry, I could not discover any other cause of his disease, than exposure to cold. On account of his poverty, he had been working very hard for some weeks, and the day before he was attacked, had caught a severe cold. Immediately thereafter, he had felt himself unusually weak, and observed a difficulty in swallowing, and the drawing together of his mouth. Being in want of every thing, he had only sipped a little warm beer, and kept his bed.

I ordered him every hour five drops of laudanum, in a table spoonful of white French wine, and also to drink it mixed with water, and to take as much white bread as he could eat. All this the man followed most punctually.

In the morning, I saw, with pleasure, that the deglutition was relieved, his mouth more opened, and the skin warmer and moist, particularly over the breast. No change was made, except, that at the same time, his landlord gave him some strong soup. As he was accustomed to the use of brandy, and had a great desire for it, I allowed him also a little.

On the third day, a copious sweat broke out, and completely removed all his sufferings.

I made him take the laudanum for two days more, though not so frequently, and, in general, continued the practice already described. In eight days he was not only quite well, but much stronger than ever.

From these cases, it is sufficiently evident, that opium alone is capable of removing the whole of the morbid state; but that it must be given often, and without interruption, and that particular attention must be paid to increase the dose gradually, which can only be regulated by its effects. A small quantity of opium may cure a slight degree of this disease, as is proved by the third case. But if the disease is more severe, a greater quantity of opium is required, and especially the frequent and unremitted exhibition of it, as appears particularly from the first case. As soon as its use was omitted, during the night, all the symptoms returned with greater violence. And this also happened, if the opium was given in too small doses, or too long continued at the same quantity. As it cannot be fixed, to a certainty, how much opium is necessary for overcoming this disease, it is therefore right, in every individual case, to give it in a small quantity; for example, five drops of laudanum every hour in any convenient fluid. If, in three hours, no evident amendment follows, this dose may be doubled, and so on, every three hours, until some salutary effect is perceived. When the disease is very violent,

lent, a greater quantity must be given from the first, even ten or twenty drops, and gradually increased. If this is neglected, or if, from the very first, in a *very* high degree of this disease, we do not immediately proceed to such a dose of opium as is requisite to diminish this spasm, all is lost, and the patient is found dead next morning, or in so dangerous a state, as seldom to allow any chance of recovery, as I have had the misfortune to see in some cases, in which I was too timid in the use of the opium.

Sometimes it is necessary to go so far with the use of the opium, that 50, or even a 100 drops of laudanum, may, and must be given, every hour, in order to subdue this dreadful spasmodic affection, and to save the life of the patient.

X.

On the Plan for Medical Reform.

IN the 'Medical Intelligence' of your sixth number, it appears that an association for a medical reform has been established under the most respectable auspices, so far as patronage goes. I wish with all my heart, success to the reformers, and to the object of their reformation; but I have lived long enough to know, that nothing short of a miracle, or even a succession of miracles, will accomplish any sudden change in the manners, propensities, and prejudices of the people. Wherever quacks and pretenders are preferred to well informed and regularly educated men, it is because the former do, or what amounts nearly to the same thing, are supposed to do, as much and perhaps even more good, than the latter. It is not with medical men, as with that exorbitant tribe of paupers and beggars, who are legally supplied with the necessaries of life, squeezed from the more industrious and useful classes of the community. No parliamentary interference has yet been deemed necessary to support the learned or unlearned fraternities; no parish assessments are likely to render medical men independent of their own industry, of the good will and confidence of their neighbours. Should that time ever come, when such coercive measures must be resorted to, there might then be grounds for mending the rules concerning the qualifications requisite to constitute a doctor, a surgeon, or an apothecary. But till such a period arrives, I must enter my protest against any reform, tending to make the rate of expences the proper

per criterion of fitness for medical practice. A set of men would thus be forced upon the public, whose merits stand sometimes in the inverse ratio of their pecuniary means; it is to make them believe, that attending two or three years at an University, that is to say, eating, drinking, and talking with men of the same age and pursuits as their own, or having their names inscribed on the college books, for even a longer period, is quite sufficient to constitute a regular education. Lest I should be thought a prejudiced London-bred man, one of those sprigs of insignificance and temerity, who would sell their penultimate shirt, in order to walk a full three months pupil at an hospital, with the expectation of rising one day from the camp or the cockpit, to the bright station of an eminent practitioner in the metropolis, I beg it to be understood, that I have run my medical career in the old regular way, beginning with studying three years at Edinburgh, and afterwards frequenting a London hospital, to see whether I could recognise, in the one place, any of my nosological friends, with whom I was so proud to become acquainted with at the other. I observed then more accurately, because I had comparative experience to direct me, that men do not differ so much on the two sides of the Tweed, as not to substitute and confound, in many cases, forms for realities. Attendance for three months in a large hospital, under good teachers, will generally prepare young men for the army and navy with a proper stock of firm feelings, so as not to faint at the sight of blood, nor shrink from doing their duty. With regard to the useful part of their services, their superiors by the aid of their experience will ward off some mischief, while nature and chance will do the rest. University men spread themselves through the kingdom, where they enjoy credit and consideration proportionate to their gentlemanly appearance, the charms of their conversation, and behaviour. As to the strict performance of their duties as physicians, success, and success alone, will establish their fame in that respect. Now I ask, what can possbly establish the reputation of low-bred uneducated men? Is it not, that the common people are unable to pay the higher classes of the profession, stand in awe of them, on account of the great difference of their manners, and so far as their contracted experience goes, the high minded men are not more successful in their practice than the others. Cases are quoted of the unskilful, almost brutal conduct, of those town and country quacks in the different branches of medical art; but is it very certain, that no such cases could be recorded from the secret annals of regular practitioners? We are shocked by the plain ignorance, as well as by the plain and open vices of the lower classes of the community, but an easy apology is found for the genteel blunders, the delicate immorality of the rich and powerful. I distrust that tendency to condemn, or at least to endeavour to stifle, by force, a class of men, who are openly supported by a great number of their fellow creatures, for whom personal sensations must be equally good guides, and personal experience an adequate rule of conduct in all that relates to their own preservation and bodily welfare. Let well educated men receive with gratitude the humble offerings of the poor, let them behave towards their inferiors, with that gentleness, and that spirit of active benevolence, which commands affection and respect, instead of fear and painful humility, then the tide of public opinion will be turned, even under the supposition, which I trust is nothing more than a bare assumption, that their professional success is not greater than that of their self taught competitors. Instead of obliging young men to go to London, or to an University, to be taught at a vast expence, why should not medical seminaries be appointed in different parts of the country, where good hospitals are already established?—Their number would excite emulation among country professors, which could not fail to benefit them, as well as the charitable institutions entrusted to their care. Young men, destined for the army and navy, would acquire at less expence, a much more complete education and better morals, than they can possibly boast of, under the present circumstances of our medical schools. London and regular Universities would enjoy the same prerogatives, so far as public opinion goes, which they do now; but every district in the country having its centre of an inferior though regular education for medical practice, would have its own local attachments for the pupils taught there, whose merits would be better appreciated, and the public at large would be less subjected to the influence of men, of whom the best that can be said in many instances is, that nobody knows, and therefore nobody can say, any thing about them.

From the foregoing remarks, it may have already been guessed, that I am no advocate for any interference of the Legislature with our private concerns. Such an interference seems to be in the first place, ridiculous, amounting to nothing less than an attempt to make fine well bred gentlemen of us all, which naturally leads to the second part of the argument, respecting the impossibility of accomplishing a reform of that kind. For if the premium bestowed freely by society on learning and manners be not sufficient to raise their professors out of the crowd, I am really afraid, Parliament will lose its time in discussing a plan for enlarging the understandings of the medical and unmedical part of the nation; and the Right Hon. Chancellor of the Exchequer will do better (if my information be correct), to postpone raising the sum of nearly half a million on medical practitioners to be drawn indirectly from the public, until every other taxable object be exhausted for raising the annual supply. Monopolies of all sorts, intellectual as well as commercial, are bad, and will always be the last resource of an enlightened government, and I sincerely hope will never be resorted to by our Imperial Parliament.

SENEX.

THE INQUIRER. No VII.

On the Study of Mental Pathology.

WHEN we consider the many opportunities which the physician enjoys for acquiring an accurate knowledge of the human constitution, we cannot avoid being surprised, that so little advancement has been made in the theory of those diseases, which are generally referred to the mind. This, in some measure, must have arisen from the intricacy and obscurity of the subject. But it is not less true, that our progress in this branch of knowledge, has been very much obstructed by many circumstances which, ere this time, might certainly have been removed.

In their inquiries into this subject, medical men seem to have been too much attached to that system, which imagines philosophy to consist in a knowledge of causes. Hence have arisen their unprofitable and obscure discussions concerning the qualities and existence of mind. Hence also, their vain attempts to explain the nature of sensation, whether by the intervention of animal spirits, the vibrations of nervous fibres, or by any other means, In a medical point of view, it is of no importance, whether the phænomena of mind be accounted for by the agency of an independent immaterial substance, or on the principles of organization. All that is necessary is to record those facts which daily present themselves to our observation, and to endeavour to refer them to their general laws. But hypotheses like those already hinted at, without in the least degree promoting our knowledge of mental pathology, have been productive of many bad consequences, by introducing into medical language a degree of vagueness and ambiguity, which has much embarrassed and impeded the progress of the science.

In the present imperfect state of medicine, it would be unreasonable to expect that its language should always be precise and well defined. Innumerable expressions however, which have obviously sprung from the distempered imagination of some enthusiastic theorist, are still retained in use, though the theory itself has long since sunk into oblivion. Were such expressions invariably restricted to one particular sense; were they considered merely as terms of art, employed to mark the unknown causes of known effects, no good argument could be urged against their use. Instead, however, of this being the case, every individual who employs them, thinks himself at liberty to give them an interpretation suitable to his own views. But the evil does not stop here; by many, these empty and unmeaning phrases are believed to afford an explanation of some obscure and otherwise unintelligible phænomenon; and thus, by imposing upon the understanding, they retard the cause of truth, and under the appearance of instruction, serve only to plunge us deeper into error and ignorance.

Besides these prejudices, medical men have been too much accustomed to associate the term disease, with some palpable change in the state of the body. Many of them apply their remedies with as great indifference, and speculate concerning their operation with as little discrimination, as if the animal machine were subject to no other laws, than those which regulate the attractions of a chemical mixture, or the motions of an hydraulic apparatus. But the opinions and reasonings of such men can have no influence with the physician, who has just views of the object of his profession; and who is aware, that the healing art cannot be successfully practised, without an accurate knowledge both of our moral and physical constitution. Important as this fact undoubtedly is, it has been long and shamefully neglected. I know there are many, who laugh at the idea of a disease of the mind, and, who think it absurd to conceive, that an immaterial and incorruptible substance should be affected by the gross and subordinate changes of matter. Such unphilosophical jargon, which even at this day is still too prevalent, has evidently arisen from mistaken notions of the proper objects of our inquiries. Of the nature either of matter or spirit we know nothing, and we are equally ignorant of all those changes, which take place in the brain and nerves during the time of sensation, or which appear to be subservient to the developement of all the varied phænomena of intellect. Enough, however, is it for us to know the results of these changes, to investigate their laws, and to discover, how far it is in the power of man to increase his comfort and happiness, by seeking for those objects, which give rise to agreeable sensations, or by avoiding those which produce a contrary effect.

No one can doubt, that the principles of metaphysics, and of moral philosophy have been much advanced in modern times.—But that branch of the subject, which respects mental pathology, chiefly from the causes already mentioned, has not made a similar progress. It nevertheless comprehends many interesting and important inquiries, which seem calculated, if properly conducted, materially to improve the happiness of man. These inquiries may justly be considered, as falling particularly within the province of the medical philosopher. It is his business, not only to examine the pains which arise from the disordered states of our moral and intelectual faculties, and the influence which these exert on the physical constitution; but likewise to investigate the various modifications and combinations of these faculties, which result either from a peculiar conformation of the body, or from the diseased states of its functions.

To obtain satisfactory information on these subjects, we must, to a luminous theory of the human mind, add all that accurate and extensive knowledge, which is to be derived from an attentive observation of man, in the greatest possible diversity of circumstances. We must trace him from the lowest stage of barbarism, to the highest pitch of cultivation and refinement, and endeavour to ascertain the principles of his character, and the changes which it undergoes, whether from habit, education, or any other cause. By thus presenting a connected view of our moral and physical constitution, and of their reciprocal influence on each other, we shall be able to investigate all the sympathies of our nature, to discover the origin and effects of the passions, and to illustrate and decypher the ever varying motives of human action. But the chief advantage which would result from these inquiries to the physician, would be to enable him to classify and arrange the different branches of mental disorders, by discovering the causes from whence they originate, and the nature of the constitution of those individuals in which they are most liable to take place.

The importance and necessity of such a mode of proceeding, must at once appear, when we consider the great degree of disorder and confusion which attend all our discussions on these subjects. To a set of symptoms, collected from individuals of the most oposite characters jumbled together without order or discrimination, we find the terms mania, melancholia or hypochondriasis promiscuously applied. While in the histories of these affections, we discover none of those accurate investigations into the previous state of the patient's associations, which not only modify all the impressions which he receives, but likewise determine the effects which result from them. To another class of diseases, which have a most material influence on the happiness and comfort of a certain description of men, little or no attention has been paid. Sometimes indeed, they are most *significantly and pertinently* characterised by the names, "low spirits, vapours," &c. The poor patient is held out to public view as an object of ridicule and contempt, and is considered as unworthy of all sympathy and regard. The causes and effects of his disease are confounded together, and all are ascribed to the creative powers of a diseased fancy.

Nothing can be more repugnant to every principle of sound reasoning, than this popular but unmeaning declamation, which may easily be traced to faulty and imperfect views of the nature of the imagination. It is the province of this power, to form new combinations among the objects which are presented to its observation.—The facility with which these combinations are made, and the pleasure or pain with which they are attended, depends principally on the cultivation which this faculty has received, and the associations which we are led to form in early life. By these associations, we are directed in the estimations which we form of the value of surrounding objects. To them also are to be refered, most of those errors and prejudices which so often embitter this life, and give rise to a great proportion of mental disorders. It should always be remembered, however, that the most extravagant flights, and most monstrous combinations of this faculty, are determined by the previous state of the mind or body; as every succeeding thought, is the result either of some new impression, or of an association with the preceding. In all these cases, therefore, where a diseased state of the imagination exists, we must endeavour to trace the links in the chain of events, from which it has arisen. If it depends on the disagreeable impressions which a bodily disease engenders, it must first be removed. On the contrary, should the mind become affected, "without the body's fault," we must endeavour to introduce new associations, either by a change of studies and occupations, or by "diversions, hurry, and a restless life."

In many cases it is extremely difficult to ascertain, whether the primary affection originates from the body or the mind.—Many individuals are affected with different varieties of mental disorders, without the bodily functions undergoing any material change. In cases of this kind, it will generally be found, that the patient is endowed with a sound and vigorous physical constitution, which in some measure resists the effects of the mental disease. In other cases, when the bodily organization is of a more delicate texture, the slightest mental irritation produces different consequences. The organs of digestion are almost instantaneously affected, and the patient is tormented with all the miseries of dyspepsia. Again the effects which result from diseases of the body, are modified by the previous state of the mind. Many diseases of the former, produce little effect on the minds of those men, who are engaged in some active employment, and whose character has not been softened by domestic sympathies, or polished by a refined education. Thus we perceive, that the organization of the body has considerable influence in moderating the effects which are apt to arise from affections of the mind. While the previous state of the mind (from whatever cause originating), in a great measure determines the consequences which are to result from diseases of the body.

Were these speculations pursued to their utmost possible extent; were the laws which regulate the connection between mind and body traced with sufficient care and accuracy, we should be able to foretell with almost unerring precision, the effects which would necessarily take place from diseases of either. As pertaining to the same subject, it would be necessary to investigate the changes in our moral affections, which take place during the time of certain varieties of maniacal attacks. From what has been said, it is evident these changes must vary in every individual in proportion to the nature of the cultivation which his faculties have received, and the causes from which his disease has originated. Facts are probably wanting to enable us to form a correct theory on this subject. Were it, however, investigated with that attention, which it well merits, we should not only be able to reconcile many of those events which appear at present so anomalous and discordant, but also to shew, that they are the necessary consequences of the circumstances in which the patient was placed. It would be vain to attempt to illustrate this subject at present. As connected, however, with the foregoing remarks, it may be worth while to make a few observations on the mode of reasoning, which is generally adopted, when talking of some of the causes of mental disorders.

These have been divided with sufficient propriety into moral and physical. Among the former are ranked the passions, and all those other calamities, which tend to disturb the harmony of our constitutions; that love, hatred, revenge, fear, grief, &c. have given rise to different mental disorders, no one can doubt. But it may be observed, that from such mutilated and imperfect information, very little addition is made to our stock of knowledge. An object which will excite fear, or love, or hatred, in one person, will produce no such effects on another. Whence does this arise? Whence does it happen, that *the same event* which will strike terror and dismay into one man, will only stimulate another to more arduous exertions? Whence does it happen, that an event which will overwhelm one man with grief will have no such influence on a person of a different character!—These, and many other questions of a similar nature, which naturally present themselves, on considering this subject, have been totally overlooked by medical writers. They seem altogether to have forgotten, that the effects of the passions, in individuals of different moral constitutions, must vary according to the different circumstances of the combination. Thus the effects of anger will be different, when combined with cowardice or bravery, envy or hatred, and in short, with any other, either of our benevolent, or malevolent affections. The same remark holds equally true, when applied to our physical constitution. Fear in some cases, it is said, occasions paleness, diarrhœa, syncope, &c. A greater degree of fear, instead of giving rise to such consequences, sometimes produces events of a perfectly opposite nature.—Speech has been restored to the dumb, and strength to the paralytic! It is needless to multiply instances, in order to evince the confusion which has arisen from want of attention to these facts; and the hints which have been thrown out, may perhaps be sufficient to suggest a more scientific arrangement of the passions, than that which is commonly adopted.

After these cursory remarks, it might have been proper, shortly to state the advantages, which are likely to accrue from examining the brain, and other organs, of those persons, who have been affected with mental disorders. But this field comprises so many important topics of discussion, that little benefit could be derived from any thing, which could be advanced here. Some of the principles, however, which should guide our researches into this subject, may probably be inferred from several of the preceding speculations.

I have thus attempted to give a rough outline of a great and important subject; a subject, which not only involves consequences peculiarly interesting to the practical physician, but to every man who is anxious to acquire a scientific knowledge of human nature.

3 J. B.

PART III.

CRITICAL ANALYSIS.

I.

" *Manuel de Médecine pratique, ou Sommaire d'un cours gratuit donné l'an vii. et l'an viii. de la Republique Française aux officiers de Santé du Département du Léman.* Par LOUIS ODIER, Docteur et Professeur en Médecine, á Geneve; de l'Imprimerie de la Bibliothique Britannique, et se trouve chez J. J. Paschaud Libraire. An. xi.

DR ODIER was a pupil of Dr Cullen, and retains his nosological arrangement. It is a remarkable fact, that Geneva is almost the only spot on the continent, where the sound principles of British medical education, and of regular practice, have become popular, under the patronage of those Genevese physicians, who have been able to estimate the comparative value of the different methods adopted here and abroad. The various improvements which are introduced, from time to time, into our practice, to be confined to the libraries of Germany, or overlooked by the supine indolence of the French, seem to be duly appreciated by the Genevese college. The city of Geneva, and the surrounding country, are highly indebted to Dr Odier, for his gratuitous endeavours to disseminate the results of his experience among a set of men, whose practice has been hitherto unguided by rules, and unassisted by any acquaintance with the progress of their art. Young men likewise, who intend to lay some foundation for subsequent methodical studies, will derive from one or two preliminary courses of this sort, a great advantage over those who fall plump upon University benches, where they lose a year at least in the act of reconnoitering the place. The purpose of this publication is expressed by the author himself, in the following words;

" After 30 years spent in the observation and treatment of a vast number of " diseases, I have thought, that if by consulting only my own experience, con- " fining myself to the diseases which are most common in the department where " I live, describing them such as I have seen them, and laying down the basis " of the treatment which I have found most successful, I might be of some

" service to those among my professional brethren, who are in need of assistance, " or rather possess zeal and knowledge enough to become desirous of new in- " formation in the exercise of their art."

The work is a sort of syllabus to a very limited course, consisting of 24 lectures only. It will be sufficient to make a few observations on such of its contents as are most deserving of attention.

The author makes, and perhaps with great propriety, only one species of the numberless varieties of continued fevers, viewing those varieties, as founded on a difference of symptoms, which originate entirely in accidental causes. Our typhus gravior, the ship, or jail fever, had remained almost completely unknown to the practitioners of Geneva, until very lately, when it made its appearance in the public jail, imported there, it is presumed, by the military passing through the town. The endemical fever of Geneva, is vulgarly known there, under the name of bilious fever; it is frequently epidemical, especially in the country, but very rarely contagious, and the symptoms of malignity, when they do occur, come on usually, during the progress of the complaint. Those fevers begin commonly towards the end of January, or the beginning of February, with some symptoms of catarrh, anorexia, nausea, and vomiting, sometimes accompanied with gripes and diarrhœa. The catarrhal symptoms cease usually after a few days; but the others go on throughout the duration of the complaint, which is very uncertain. The treatment consists in evacuating first by a gentle emetic the contents of the stomach, afterwards keeping the bowels open, and ending the cure with some tonic. It appears to be nothing else but the common synochus of this country, modified by the season of the year, in which it usually prevails.

Accidental symptoms are treated by particular means; those of malignity, besides the internal remedies generally known, are successfully attacked by cold washing, repeated several times in the day. " I do not know, says Dr Odier, any thing, whose effects are more rapid in abating the feverish heat, arresting delirium, and inducing a gentle natural sleep."

Nephritis, in Geneva, is often the consequence of a gouty or rheumatic affection, but never, as is the case elsewhere, of a stone, or the gravel, which are complaints almost unknown in that country. This observation is worthy of attention, when it is considered, that Geneva lies in the centre of vineyards, where sourish wine grows plentifully, for common use; and we are informed, that the same remark applies to the whole range of the banks of the Rhine, whence the acid Rhenish wine is brought over to this country.

Rheumatic affections are extremely common throughout that part of Switzerland, lying confined between the chains of high mountains, which cause sudden and considerable changes in the temperature, the common exciting cause of those painful disorders. Dr Odier distinguishes three species of rheumatism. The first species affects the muscles, rather than the ligaments and tendons. The pain resembles that produced by fatigue, luxations, or contusions, is very fugitive, goes off immediately by rest, and frequently disappears, entirely of itself, after a few days. There is commonly no fever present, although sometimes it comes on with great violence; but the patient remains very liable to be affected by the least change of temperature, and thereby apt to relapse. Warm or stimulating applications are usually sufficient. The best prophylactics are flannel shirts, and the cold bath. Under the head of this species of rheumatism, the author treats of the toothach, and mentions a remedy, which he has often employed with advantage in his own case. He swallows slowly mouthfuls of cold water, which he allows to grow warm in his mouth, before passing down; after he has drank in that way three or four pints, he has some slight febrile sensations, which carry off the pain.

In the second species, generally known under the name of acute rheumatism, the joints are red, painful, and swelled; the pain and swelling fly from one joint to the other; the pulse is quick and strong, the periods of the relapses are much more distant than in the preceeding species, and in the intervals, the patient is not more liable than any body else, to suffer from exposure to cold and moisture. The treatment consists in promoting the different secretions, and quieting the irritation of the vascular and nervous systems, by drinking copiously sour milk, or sugar of milk, by the use of tartarised antimony, of nitre and magnesia, by anodynes made slightly diaphoretic, and by sedative, or stimulating frictions. If the patient be robust and plethoric, one or two venesections may be used at the commencement of the attack. Among the various symptoms which are apt to supervene on acute rheumatism, and to degenerate afterwards into a chronic complaint, Dr Odier mentions an affection of the heart, the prominent features of which is a species of hectic fever, originating in a slow inflammation of that viscus, commonly of the rheumatic kind. Its characteristical symptoms are frequency and irregularity of the pulse, oppression, and cough. It is frequently accompanied with anasarcous swellings, and ends either with sudden death, or with the usual colliquative symptoms. The chief remedies are rest, a proper regimen, and cooling medicines, such as nitre and acids, and diuretics against the dropsical swellings. When head-ach and delirium accompany the rheumatic fever, leeches to the temples; a large blister to the nape of the neck; a bladder filled with ice, and applied over the head are recommended; a practice equally successful in maniacal phrenzy, but surely not to be advised in that violent inflammatory affection, commonly called *phrenitis.* We hint at this ground of distinction, because it is our decided opinion, that acute rheumatism cannot be considered as a genuine inflammatory disease.* In chronic rheumatism, which constitutes the third and last species, the pains are fixed, and permanent, accompanied with a sense of coldness; they continue for weeks, months, and years, without any fever, and terminate often by anchylosis, contractions of the limbs, and sometimes by palsy. The general indication is to stimulate the small vessels of the whole system, and especially those of the parts affected. The plan of strong sweating has succeeded with Dr Odier in cases of chronic rheumatism, which had resisted a number of other remedies. It usually excites a strong fever, and sometimes a general miliary eruption, similar to that produced by some thermal waters used for the same purpose.

Under the head of eruptive fevers, we see, with pleasure, that the vaccine inoculation is gaining ground very generally in that part of the Continent, where our author resides; and we have heard from another quarter, the difficulty of procuring small-pox matter there, amounts, at present, nearly to absolute impossibility. The desquamation in scarlatina, lasts, says Dr Odier, five or six weeks; if during that time, the patient exposes himself to cold, moisture, or merely to the open air, he is in danger of becoming anasarcous, or even of being suddenly carried off by a rapid effusion into the cavities of the brain, or of the chest. That, however, never happens, when the patient secludes himself from the access of air for forty days, or till the desquamation is completed. It has been sometimes observed, the author adds, during epidemics of scarlatina, that persons, without any appearance of fever, of redness, or desquamation, were suddenly seized with symptoms of anasarca or oppression, as if they had had the scarlet fever, and had imprudently exposed themselves to the open air. The treatment is very simple; the antiphlogistic regimen, with a steady temperature, is sufficient. If the angina presents, either from the beginning, or during the course of the complaint, symptoms of malignity, antisceptics, and especially cold air, with fumigations of nitric acid, directed on the ulcers of the throat, have been found to answer well. This last method, Dr Odier observes, has had the most complete success, during a late epidemic in and about Geneva. The use of cold washing and affussion in the common scarlet fever of this country, has been found not only harmless, but one of the best remedies to lessen the violence of the symptoms, to crush it even at its commencement, and to diminish the danger of its contagious influence. We do not wish to invalidate any conclusion deduced from actual experience; and what is good practice here, may turn out to be bad elsewhere; but Dr Odier will allow, perhaps, the practice which he supports, to be indentically the same with that of Sydenham, grounded itself upon a piece of theory. "Cum hic "morbus nihil aliud mihi videatur quam mediocris sanguinis "effervescentia à prægressæ æstatis calore, aut alio aliquo modo "excitata, nihil quicquam molior, quo minus sanguis sibi despu-"mando vacet, et materiæ peccanti, quæ satis promptê abjungitur, "per cutis poros ablegandæ. Quamobrem satis habeo ut æger à "carnibus in solidum abstineat, et a liquoribus spirituosis qui-"buscumque, tum ut neque usquam forâs prodeat neque se per-"petim lecto affigat."—Observat. Medic. circâ morb. acut. Sect. vi. cap. 11.

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* See Edin. Medic. and Surg. Journ. No. 8, p. 157, &c.

To Sydenham, however, we remain indebted for this incipient amelioration, in the treatment of our eruptive disorders, had he generalised his ideas on small-pox, by extending his mode of practice to other constitutional affections of the skin, he might have been accused of being nothing else than a presumptuous theorist, and have deprived himself of the pleasing reflection, that he had done much in preventing the fatal effects of one of the most dreadful contagions, which has ever assailed the human race. It was reserved to the late Dr Currie to complete, in a better age, assisted by a vigorous genius, and supported by his enlightened zeal for the good of his fellow creatures, the task of his illustrious predecessor. Prejudice may oppose, reason may struggle, but the broad basis is laid, on which a simple, but majestic edifice will gradually rise, to teach us, that good sense in the art of the physician, as in that of the moralist, goes hand and hand with sound philosophy, and can never be separated from it. But to return to Dr Odier, even if we admit the propriety of his practice, when the complaint is once established, and the natural functions of the skin considerably impaired, still the use of the cold affusion, to destroy at once the feverish symptoms, and thus to prevent the consolidation of the disease, might be recommended in those cases, where confinement is likely to prove inconvenient to the patient.

The author distinguishes two species of dyspepsia, one proceeding from atony, the other from irritability. This latter kind is very common in Geneva, and Dr Odier thinks he has observed, that the motion of the arms disposes particularly to it; perhaps it is more probably the consequence of the sedentary life led by that class of people, females especially, who work with the hands alone. It differs from the dyspepsia atonica, by the absence of loathing for food, and a sense of pain supervening two or three hours after a meal, accompanied with cramps, which terminate usually by nausea and vomiting After having tried, with little success, various tonic and antispasmodic medicines, the author discovered in 1786, a new remedy, which, in cases not otherwise complicated, succeeds much better than any other, and is never attended with any inconvenience, viz. the *white oxide of bismuth*, in a dose of from six to twelve grains four times a-day.

In the 16th lecture, Dr Odier treats of mental disorders, and reckons *incubus* in the number; he mentions the case of a gentleman between 25 and 30 years of age, who could not go to sleep in his post-chaise, when in motion, without beeing soon awakened suddenly, by a most painful sensation, as if an enormous weight had fallen on his brain. His head bent forwards under that imaginary weight, he was unable to speak, and his whole body was seized with a convulsive tremor, which lasted some time. He did not experience these sensations, either when sleeping at rest, or when he could resist sleep in his chaise. As his business obliged him to travel frequently by night, he wished much to get the better of this disorder. Several antispasmodic medicines were tried in vain; it was, however, entirely removed by the petals of the *cardamine pratensis*, recommended by Sir George Baker in nervous asthma, in the dose of two or three drachms every day.

Under the head of slow fevers, and of atrophy, the ingenious author points out a cause of the *marasmus infantilis*, well deserving our attention. "Infants at the breast, says he, are "sometimes seen to decline without any apparent reason; "their countenance becomes pale and wrinkled; giving them "the appearance of diminutive old people. Infants suckled by "mothers, endowed with great sensibility, are, as far as my personal observation goes, more subject to that sort of decline "than others. It is probably owing to some change in the quality of the milk, occassionally produced by a maternal attachmant too exalted or ill directed." For it is usually sufficient to deliver the child to a nurse of calmer affections, or to wean it altogether, in order to restore it in a few days to its natural plumpness and vigour. And what is more, the same milk that disordered one child, will agree perfectly well with another, for whom the nurse does not feel the same degree of anxiety; she may even return after a few days to her own infant, when her mind is become more composed; so that a temporary exchange of nurses, and of nurslings, will frequently stop the progress, and remove permanently the causes of the disorder in question. The author has evidently omitted a species of atrophy *(atrophiâ lactantium)*, which, in Great Britain, at least, is a growing evil, especially among the lower classes. The frequency of nervous disorders in his own place of residence, which he himself confesses to be rapidly increasing; the tendency to premature decay, which is commonly observed in females of mountainous countries, and the habit of suckling their own children, surely very common in a city, inseparably associated with the lessons and the name of the author of Emile, must render this complaint still more common in that part of Switzerland, the diseases of which, Dr Odier now professes to review. The proper mode of treating it would have been highly acceptable to that class of medical practitioners, for whom these lectures are avowedly intended.

A case is related of Tympanites, produced by an accumulation of feces in the intestines, in which the operation of entereotomy was successfully performed. A patient aged 70, after a diarrhœa which had lasted four months, became constipated to a great degree, the strongest purgatives were exhibited without effect, the belly swelled, and became painful. Evident symptoms of gangrene soon supervened, and death seemed unavoidable. Under those circumstances, it was determined, that the operation should be tried. Mr Fine (an eminent surgeon in Geneva), cut into the most prominent part of the swelled abdomen, and retaining the intestine on the surface of the wound, by means of a thread, which was passed through the mesentery, and fixed on the sides of the belly with sticking plaster, he opened the intestine, by means of an incision, long enough to give passage to the feces, which issued from it in great abundance.

The tympanitic swelling, and symptoms of gangrene, became less, and soon after disappeared completely. The intestine adhered to the sides of the wound, so as to render the thread useless: an artificial anus was the consequence, and the feces issued from it, not continually as expected, but once or twice a-day only, with a sense of previous warning, which enabled the patient to prepare the proper apparatus for cleanliness. With the exception of that inconvenience, the person was well enough for a whole year to walk about, and to attend to all her usual business.

She then became dropsical and died; on opening the body, a hard tumour was found, compressing the intestinum rectum at its origin, so as to obliterate it completely.

Bronchocele is considered as an obstruction and swelling of the thyroid gland, which frequently increases so much, as to render respiration difficult; on dissection, it offers the same appearance as that of the breast. It sometimes passes into a state of ulceration, which, however, is never phagedenic nor painful. The causes of this disease called *goître*, are very obscure: It is endemical in some countries, especially in *Valais*. Some persons think, that it is owing to the difficult circulation of air in valleys; others ascribe it to the quality of the waters. Dr Odier inclines to the latter opinion, because it has appeared to him, that distilled water prevented the increase of the tumour, and even tended to lessen its bulk. Women are more subject to it than men; and it is more particularly during their lyings-in, that it makes a rapid progress. It is cured in Geneva by burnt spunge, exhibited in powder, or infused in wine, and combined with purgatives, to prevent the cramps of the stomach, which sometimes accompany the disappearance of the swelling. Muriate of barytes has likewise been recommended.

We have thus picked up at random, some specimens of Dr Odier's practical notions: In perusing this book, we have felt more at home than is usually the case, when examining such of the continental productions as relate to the practice of medicine. Our author's general mode of treatment, is neither systematically passive, nor rashly active; he knows well, that patients do not call physicians to their bed-side to be looked at and rest satisfied with draughts of patient expectation; if it were for no other purpose, than to raise the spirits and confidence of the sick, the physician must take upon himself the direction of nature, and lead her as well as he can, to a favourable issue. For such is the weakness of human nature, such is the tendency of the generality of men to a species of superstition, that they must have medical priests and ceremonies to attend them through life, and to help them to die.

II.

Observations on the Utility and Administration of Purgative Medicines in several Diseases. By JAMES HAMILTON, M. D. Fellow of the Royal College of Physicians, and of the Royal Society of Edinburgh; and Senior Physician to the Royal Infirmary of that city. *Second Edition, corrected and enlarged,* 8*vo. p.* 349. *Edinburgh,* 1806.

THE principal additions which have, in this new edition, been made to the former observations of the author, are a chapter on hysteria, and another on tetanus. And these, for the convenience of the purchasers of the first edition, have, with their corresponding appendixes, been published also in a separate form. The whole work, however, has been revised, and some less important additions made to the general text. It is unnecessary to recall the attention of our readers to the subjects we have already so fully examined, when reviewing the first edition of this useful work, in our fifth number. It will be sufficient here, very shortly, to notice the additional chapters on hysteria and tetanus.

Chap. 7.—*Observations on the Utility and Administration of Purgative Medicines in Hysteria.*

After premising a short history of the disease, in which the symptoms are narrated in the order of their occurence, Dr H. remarks, that the most constant and invariable of these, are pains of the abdomen, flatulence, constipation, the hysteric globe, acid and fetid eructations, vomiting and sometimes purging, all indicative of considerable derangement of the stomach, and alimentary canal. This affection of the stomach and bowels, he considers as primary, and the other multifarious symptoms of hysteria, as depending upon it. According to this view, he employs purgatives in hysteria, with the same limitations as in chorea, and other diseases already treated of.

" I have not been disappointed in my expectations in thus treating hysteria, my success has been equal to my wishes, and the source of much satisfaction to me. Yet my experience is not so complete as to enable me to say to what extent purgatives may be employed in hysteria, exclusively of other medicines. Within certain limits, I accordingly call in the aid of fetid and tonic medicines; but, in my estimation, they are merely subsidiary, and, on some occasions, might be altogether overlooked, as they were in the treatment of Sarah M'Millan and Isabel Black, whose cases are inserted in the Appendix, No VIII. In particular cases, where great anxiety prevails, recourse may be had to wine in moderate quantity, till such time as relief is obtained by purgatives.

" I may add, by way of caution, that in hysteria as well as in chorea, chlorosis, and hæmatemesis, the full exhibition of active purgatives is necessary to procure even moderate evacuations from the bowels; and that this exhibition must be continued from day to day, till such time as the feces are natural, and till the disease ceases.

" The first purgative that we use, may seem, on some occasions, to aggravate the symptoms, but the practice must not be deserted on that account. The additional irritation, which purgatives may give in the first instance, soon passes away, and the perseverance in the use of them, removes that irritation which gives rise to the disease, which of course, disappears in proportion as the bowels are relieved of the oppressive mass of accumulated feces."

We believe there is much truth in the doctrine, and much good in the practice of Dr Hamilton. But, we cannot help thinking, that he all along keeps one indication too much in view, that his practice is too exclusively purgative in some cases. We must recollect, how successfully we have seen chlorosis treated by the preparations of iron, and how often we have combated hysteria by tonics, and antispasmodics, and recollecting this, we cannot, all at once, part with them in the treatment of these diseases. But the lesson given us by Dr H. to unload the bowels, is not the less important. And the utility of purgatives in hysteria, might, if necessary, be largely confirmed by other documents.

Chap. 8.—*On the Utlity of Purgative Medicines in Tetanus.*

Hitherto Dr Hamilton has had experience for his guide; his opinions have been founded on observation, and his practice has been confirmed by extensive experience. His observations on the utility of purgatives in tetanus, are more hypothetical and analogical. But the result of the investigation certainly encourages the fair trial of these medicines in a disease, the treatment of which has been hitherto so hopeless. In tetanus, the bowels are obstinately constipated, there is uneasy sensation and tenseness of the præcordia; it occurs in those climates and seasons in which derangement of the hepatic system, and of the alimentary canal prevail; chorea and hysteria are spasmodic diseases, accompanied with disorders of the bowels, and with costiveness, and are relieved or cured by purgatives; the tetanus of children, or trismus nascentium, is cured by free purging; lastly, besides there presumptive circumstances, Dr H. has endeavoured to support his opinion by shewing, that where purgative medicines have been given in tetanus, whether by design or not, they have proved eminently useful, and that some examples of cures may fairly be attributed to the purgative operation of some of the remedies employed, an opinion which is corroborated by Mursinna's cases, inserted in this number of our Journal, p. 435. Cases from his own practice are also adduced of tetanic affections cured by purgatives.

III.

Practical Observations concerning Sea Bathing. To which is added, Remarks on the use of the Warm Bath. By A. P. BUCHAN, M. D. of the Royal College of Physicians, London. P. 207. 8vo. London, 1804.

THE enlightened practitioner, whose information has kept pace with the progress of science, will not perhaps find any thing very new in this little volume. But, an attempt to embody, and render more accessible, the knowledge which has gradually sprung up, is at all times acceptable; and a treatise on a subject so popular as the present, cannot fail to be useful. While persons of every temperament and predisposition, and invalids of every description, are annually flocking to the sea coast, in search of pleasure and of health; there must be reason to apprehend, that a remedy so powerful, and so useful in some diseases, cannot be of universal application, and must be hazardous and pernicious in others. And in truth, we know but too well, that sea bathing is much abused in this, fully as much as the warm bath is abused in other countries. Misled by the popular theory of the general tonic, and invigorating powers of the cold bath, our countrymen are inclined to regard it as an universal remedy adapted to every case of debility and disease. A similar prejudice has condemned the warm bath as relaxing and debilitating. But, even when sea bathing does suit the disorder, when it has been advised by an experienced physician, the patient is very generally sent to the sea coast, ignorant and uninstructed. He is to bathe indeed, but he has no just notion of the remedy, he has no rules for his direction, he knows not how, in his particular case, he may bathe with safety and advantage. It is certain, however, that the effects of the cold bath not only vary in different constitutions, and in different states of disorder, but that they vary also in the same individuals, and in the same case, with the manner and circumstances of using it. It produces, even in a healthy individual, very different effects, when taken before or after meals, before or after exercise, when the body is cool, temperate, or heated. These varieties of effect are still more remarkable in a debilitated or diseased system; and should therefore be fully understood, and duly appreciated, in each individual case. For just notions of these, we are especially indebted to the much lamented Dr Currie, whose valuable work has destroyed a host of prejudices entertained on the subject of cold bathing. In general, the effects of temperature on the animal body, and the operation of the various modes of bathing, are better understood than formerly. We have general principles and experience to direct our future observations; and the way is cleared of those prejudices which obstructed the progress of improvement. Dr Buchan aims not at novelty, he professes only to be useful, by diffusing those philosophical opinions, respecting the important objects of health and life, among persons who might be deterred from the perusal of a work professedly medical. But, though the design of his undertaking be popular, even the medical student may peruse it with advantage. The general principles are laid down in a clear and scientific manner, and many of Dr Buchan's practical observations and illustrations are deserving of notice. It is, upon the whole, a good compendium of the most material facts and doctrines relating to the subject of sea bathing.

Dr Buchan has divided his work into eight chapters. In the first, entitled General Observations on Cold Bathing, he gives an account of the immediate effects of plunging into cold water, explaining the phænomena as he goes along, the shock, the convulsive respiration, the action of the heart and arteries, the rigors, and the glow which takes place on resuming the usual clothes, the presence of which glow, is the best criterion of the eventual utility of bathing.

> " If immersion in the bath, be not succeeded by this glow on the surface of the skin, bathing should by no means be persisted in. The absence of it is a proof, either that the water has been too cold, or immersion in it too long continued, relatively to the vigour of the constitution; and that the powers propelling the blood have not sufficient energy to overcome the temporary torpor of the superficial vessels. Head-ach, indigestion, cold, and appearance of deadness of the extremities, will be the certain consequences of persisting in the use of the bath, by individuals, in whom this salutary symptom does not occur; their systems being too feeble, either naturally, or from the effects of disease, to derive benefit from this remedy. From these observations may be deduced the reason why bathing in the sea is salutary to many persons who are injured by the lower temperature of a bath supplied by a cold spring; and also, why the thermal baths at Buxton, in Derbyshire, are beneficial to many delicate or debilitated invalids, who are unable to bear the greater cold of the open sea."

The remote effects of sea bathing, are to invigorate the constitution, and render it less susceptible of disease. In a more particular manner, Dr Buchan is anxious to prove, that the practice of cold bathing prevents catarrhal affections, or what is usually termed, catching cold. These complaints are the effects of atmospherical variations of temperature, and are most prevalent during autumn and spring. The more tenderly any individual is brought up, the more susceptible he becomes of disease from those variations. Those who accustom themselves to heated rooms, and warm cloathing, are the most subject to colds; while those, on the contrary, who have been used to go thinly clothed, can bear the vicissitudes of the weather, with much less risk of disease. The powers of the living body are much under the influence of custom; and much may be done, by accustoming ourselves to the vicissitudes of temperature. A habit, in this respect, will render us much less susceptible of cold, and the occasional use of the cold bath, by inuring the body to a wider range of temperature, tends to diminish the danger of those sudden transitions from heat to cold, and the contrary.

"After having bathed in the sea, during a few weeks in autumn, I have observed," says Dr B. "with respect to myself, as well as in many other instances, that persons prone to catarrhal affections, are much less susceptible of them, during the ensuing winter. By the occasional use of the cold bath, the perspiring vessels of the skin are also invigorated, and accustomed to perform their functions in lower temperatures, their susceptibility of slighter alterations is diminished, and perspiration becomes firm and regular, while the danger of disease, from suppression of this function, is diminished. As a proof, that the organs of perspiration are rendered more vigorous, by occasional exposure to cold, I have known many examples of people who never failed to catch cold, as it is called, on having their feet in the slightest degree wet; who, in consequence of adopting the habit of washing their feet regularly every morning with a cloth dipped in cold water, or what is preferable, in a solution of common salt in water, have entirely overcome this delicacy of constitution."

The lower the temperature at which the organ of perspiration is accustomed to perform its functions, the less it is maintained, will be the risk of its due action being interrupted by the inconstancy of our climate, and this view leads our author into a considerable digression on the abuse of cloathing.

"The habitual use of flannel garments, by accustoming the exhaling vessels to perform their functions in a certain high temperature, in like manner diminishes their natural energy, and renders them liable to become torpid, by the slightest abstraction of their usual warmth; and thus gives rise to colds, rheumatism, and other complaints, arising from checked perspiration, which much clothing, is commonly, but erroneously, supposed to prevent."

We have no doubt, that the flannel shirt, like every other good, may be abused. The general experience of its good effects, however, has recommended, and supports its use. A person who wears a flannel shirt, will not, in this country, be overheated by it, but the transition from a warmer to a colder air, will be less sensibly felt. And spite of the dogmatism of Dr Trotter, our sailors and soldiers are as sensible of the benefit of a flannel shirt, as the most luxurious and self-indulgent of our countrymen.

A saline incrustation is formed on the bodies of those who bathe in the sea, and Dr Buchan is inclined to think, that part of the good effects resulting from bathing in salt water, may depend on its saline impregnation exciting, in some measure, the action of the cutaneous vessels. Certain it is, that sailors and fishermen are convinced, that they are less liable to be injured by being wet with salt water, than with rain; an observation, which may be partly explained by the slower evaporation of water impregnated with salt, and partly by the excitation of the skin, by the saline particles.

Chap. 2. *On the Time of Bathing.*—Chap. 3. *On the Manner of Bathing.*

There are many popular prejudices of a dangerous tendency entertained on these subjects. It is believed, that it is impossible to bathe too early in the morning; that it is best and safest to bathe with an empty stomach; that the body should be perfectly cool, and the circulation calm, not hurried by heat, exercise, or other adventitious stimulus.

It is undoubtedly not safe to bathe with a full and loaded stomach, immediately after meals; digestion is disturbed by plunging into the cold bath. And this observation, or perhaps motives of convenience, have suggested the morning, as the fittest time for bathing. It may suit, well enough, the healthy and vigorous, but it is, upon the whole, the most improper time of the day, for the debilitated invalid.

> "I have frequently been shocked, at seeing delicate invalids of both sexes, apparently just risen, and before the vital functions had resumed their proper energy, standing pale, and shivering on the bleak beach, or waiting in a bathing room, chilled by streams of cold air rushing through opposite doors and windows, and expecting, apparently with a degree of horror, their turn to go into the water."

This is but too true a picture; from bathing in this state, no possible advantage can be derived. Such invalids should have the energies of their systems roused by a slight breakfast, and such a degree of exercise, as may produce a general sensation of warmth over the whole body, before plunging into the cold bath.

Noon, or a little after it, is therefore, by far the best time for general sea bathing; the sea is also warmer at this time, than it is in the morning. Our author has found the temperature of the sea, when high water occurs about two or three o'clock in the afternoon, to be from 10 to 12 degrees above what it was at low water, at eight o'clock in the morning.

Before bathing, the body should be perfectly cool: The very reverse of this, which is commonly inculcated and acted upon, by bathers, would be a safer general rule. Infirm persons should use such exercise before immersion, as may excite some increased action of the heart and arteries, with some increase of heat, and no one should plunge into the sea, with feelings of languor, lassitude, and chilliness. It should be generally understood, that it is safer to plunge into the cold bath, like Falstaff, hissing hot, than when the body is chilly and cold. Generally, let the system be sufficiently warm and vigorous, to be able to resist the shock of the cold bath, and to secure that salutary reaction, which is distinguished by the succeeding glow.

Many important lessons are comprehended under this rule. For the general doctrine connected with it, we refer our readers to the writings of Dr Currie. But we quote the following very pertinent remarks from Dr Buchan:

> " Many of the circumstances, which perhaps, unavoidably precede the present mode of bathing, seem calculated to induce a state of the system, the very reverse of what has just been insisted on as the most proper, with which it is eligible to enter the water. The machines, as they are called, which are provided for conveying bathers into the sea, are frequently composed of canvass; at least, the extensive awning with which they are in some places furnished, and which, as subservient to the purposes of shelter and decency, they certainly ought never to be without, is always constructed of this material. Being necessarily exposed to all kinds of weather, they are occasionally so completely pervaded by rain, that several days of sunshine are required to render them perfectly dry. They will, moreover, be found, in general replete with moist exhalations, arising from wet clothes and damp boards, the perpetual evaporation of which, is so productive of cold, that I have frequently observed the thermometer indicate their temperature, as being from three to five degrees under that of the open air.
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> " Of these vehicles, such as they are, a sufficient number is never to be found in readiness to accommodate the bathers in uninterrupted succession. As persons are only entitled to a machine, in the order in which their names are set down, numbers must necessarily be always waiting in expection of their turn. This interval is generally passed in loitering in an apartment rendered cold by the exclusion of the rays of the sun, the exhalation of moisture from various sources, and a perpetual thorough draught of air. The apprehension, which many timid people have of going into the sea, is further increased by the abatement of spirits, consequent to that kind of slight disappointment, which arises from not having an opportunity of bathing at the moment when the mind was made up to it. All these circumstances tend to impair the energies of life, and consequently, to diminish the advantages to be expected from the cold immersion. Such inconveniences do not perhaps admit of being completely corrected; it is, however, proper to point them out, in order to put the more delicate, and especially invalids, on their guard; to prevent them from imputing evils to sea bathing, which in fact, originate from their own improper conduct; and at the same

time, to enable them to use such precautions as are within their power, in order to obviate those evils.

"By continuing a due degree of exercise, the heat of the body should be kept up to its highest point, till the moment of entering the bathing machine. If the clothes be taken off too soon, an interval elapses between the time of undressing, and of immersion in the water, during which, the body is liable to be chilled by exposure to the air. But the preferable plan is, after undressing as quickly as possible, immediately to wrap the body in a large dry flannel gown, which should not be laid aside, till the very moment previous to plunging into the water. By this means, the shock of immersion will be diminished, and the occurrence of the salutary glow, which ought always to succeed bathing, may in general be insured."

Bathers are guilty of other dangerous imprudencies, which are well exposed by our author. But, for many other just observations, and useful cautions, we must refer our readers to the work itself.

We pass over the 4th Chapter, on the complaints in which sea bathing is beneficial, as containing nothing of sufficient novelty or importance, to detain the medical reader. We wish, for the benefit of those to whom this volume seems more immediately addressed, that Dr Buchan had extended his observations "on some of the bad effects of sea bathing," the subject of his 5th Chapter. We agree with Dr Buchan, that sea bathing is a remedy not very useful, and sometimes prejudicial, in diseases of the skin We believe, that much more benefit is to be derived from the warm, than from the cold bath, in cutaneous disorders. But we cannot agree with him, when he asserts, that ulcerations of the legs are, without exception, injured by the contact of sea water. These are often connected with general disorder of the health, and we have frequently known such ulcers heal very rapidly, under a course of sea bathing.

Many delicate people, who in other respects agree with the cold bath, are observed to have their ancles swelled, and œdematous. These slight œdematous appearances, are speedily removed by the warm bath.

Sea water is not used as a bath only, it is taken also internally, as a medicine, by those who frequent the coast for the recovery of their health; and some farther benefit may perhaps be derived from change of air by those invalids who come to the sea, from interior and elevated situations.

Two more chapters are, accordingly, added by Dr Buchan, the one on the internal use of sea water, the other on sea breezes.

Sea water is used as a purgative and alterative, and thus may prove beneficial in some chronic disorders, in scrofula and in glandular obstructions. Our knowledge of the medicinal effects of sea water is, however, not very precise. Our author assures us, that it answers particularly well as a purgative, when the bowels are loaded with viscid phlegm, and that the use of it frequently restores health and appetite. "But in irritable, hectic, and what are termed bilious habits, it heats the body, and occasions considerable, and sometimes permanent, disorders of the digestive organs."

It is sometimes useful in worm cases, and in the beginning of mesenteric obstruction, or the early stage of the atrophy of children, and in cutaneous complaints.

In popular language, we hear much of the purity and salubrity of sea breeze, and our philosophy, some time ago, supported the opinion. The air was washed and purified by the water of the ocean; the fixed air, the product of animal respiration, and of combustion, and other noxious effluvia, were absorbed by the sea, and the atmosphere purified. Dr Buchan seems firmly persuaded of all this, and has amused himself with experimenting, fruitlessly enough, on the absorbing power of sea water. He quotes, too, the eudiometrical experiments of Ingenhouz; but these have not been confirmed; and the most correct observations, with improved eudiometrical instruments, lead us rather to believe, that the constitution of the atmosphere is almost every where the same, at least, that the proportion of good respirable air is not greater on the sea coast, at sea even, than elsewhere. Whatever benefit, therefore, may be derived from sea breezes, this is not to be attributed to the greater purity of the air.

The density and pressure of the atmosphere is greater, indeed, on the coast, than in more elevated situations in the interior; the sea breeze is cooler than the air of large and populous towns; it is frequently loaded with vapour, and even with saline particles. And these are the only sensible qualities to which we are, at present, able to refer any peculiarity of effect it may have on emigrants. The subject of change of air is an obscure, but curious one. The effect of changing the air, as it is called, is in some complaints too striking to be denied. But the inhabitant of the sea coast will experience the same benefit from emigrating to the interior, which the invalid, from the country, reaps from a journey to the sea coast, and that, too, under the same condition of health.

Our author having now discussed every thing relating to the subject of sea bathing, closes his volume with a few remarks on the use of the warm bath. He briefly exposes those prejudices which are entertained, with regard to the effects of warm bathing, and to the time and manner of using it; and lays down those juster opinions, which science and observation have developed. Properly used, the warm bath is not relaxing and debilitating, but invigorating and refreshing to the invalid, and to those exhausted by previous fatigue. Nor is there that danger of catching cold after immersion, that is commonly apprehended. The fittest time, therefore, for warm bathing, is not in the evening, before going to bed, but an hour or two before dinner. A very few practical observations are added, on those disorders in which the warm bath has been found peculiarly beneficial.

IV.

SURGICAL OBSERVATIONS.—Part the Second; containing an account of the disorders of the health in general, and of the digestive organs in particular, which accompany local diseases, and obstruct their cure:—Observations on diseases of the Urethra, particularly of that part which is surrounded by the prostate gland:—And observations relative to the treatment of one species of the Nævi Materni. By JOHN ABERNETHY, F. R. S. &c. *London*, 1806.—8vo. Pages 245.

IF Surgeons of the present age, were indeed as ignorant of medecine, as Mr Abernethy would have us believe, or if entirely occupied hitherto with their knives and saws, ointments and plasters, they had paid little or no attention to the general health of the system, had overlooked the influence of internal disorders on local diseases, and the reciprocal action of external diseases on the vital and natural functions; or if having remarked what indeed was too obvious to escape observation, they still were unable to prescribe a dose of physic in a surgical case, without the advice and authority of the physician, we might with Mr Abernethy regret this evil consequence of the artificial division of the healing art into the medical and surgical departments. We think much more favourably, however, of the attainments of our surgeons, and on this side the Tweed at least, we cannot complain of their attention being so exclusively directed to their own art, as to have rendered them either unwilling, or unable, to undertake the medical treatment of their own patients. But Mr Abernethy would insinuate, that from this artificial division of the healing art, the effects of local disorders upon the constitution have been too little attended to; "and indeed" he adds, "I know of no book, to "which I can refer a surgical student for a satisfactory account "of those febrile and nervous affections, which local disease pro-"duces, except that of Mr Hunter."—Yet the doctrine and treatment of symptomatic fever are laid down in almost every surgical work, that is not a mere book of bloody operations; and no well educated surgeon can be ignorant of those various febrile affections of the system, of their influence on local diseases, or of the indications arising from a knowledge of the reciprocal action of constitutional and local disorders. Who, in truth, is ignorant of the use of those general remedies, of venesection, and the antiphlogistic regimen; of clysters, cooling laxatives, and occasional purging; of wine, opium, bark, and mercury; of good air, appropriate diet, and exercise, in the treatment of local diseases? Or what surgeons need be told, that blows on the head, and injuries of the brain, bring on sickness and vomiting; or that wounds of the omentum are attended with hiccup, retchings, and other symptoms of disorder of the primæ viæ; that the irritation of a sordid ulcer will affect the general health; or that a white and furred tongue with inappetency and other dyspeptic symptoms, indicate derangement of the digestive organs, and that these and costiveness are relieved by purgatives, and bitters; or that these symptoms often accompany local disorders, and react upon them?

We do not mean by this exordium, to bring discredit on Mr Abernethy's book, or to insinuate, that he has written an useless, or unnecessary one; but we think, he has depreciated the previous state of our knowledge of this subject, with the view of enhancing the value of his own observations, and attributed, unjustly, the imagined ignorance of surgeons of the mutual influence of constitutional and local diseases, to the too exclusive practice of their own art. We allow to Mr Abernethy, the merit of having taken a more comprehensive view of the subject, of having traced pathologically the steps of connexion between local and general disease, and of having laid open to the profession, a field of new and interesting observation and inquiry. He has embodied our looser knowledge into a more compact system, and enriched the whole by his own observations. Mr Abernethy's general theory seems to be, that the irritation arising from local disease, through the medium of the sensorium and nervous system, produces often great disorder of the digestive organs, which reacts on, aggravates, and keeps up the local disease, whence this general derangement originally proceeds.

The symptoms characterising this disorder of the chylopoietic organs are those which belong to dyspepsia; diminution of appetite and digestion, flatulence, unnatural colour, and fetor of the excretions, costiveness; a dry, foul, and furred tongue; pain of the epigastrium on pressure; and turbid urine. On each of these symptoms, Mr Abernethy comments at considerable length; and he particularly calls the attention of his reader to the state of the tongue, and the colour, and other sensible appearances of the alvine discharge. The inspection of these last will furnish, to the practitioner, indications of the state of the biliary system so often interested in this disorder, and of the degree of the failure of the digestive and assimilative processes. "The colour of the alvine ex-" cretions in these disordered states of the viscera is various.— " Sometimes they appear to consist of the residue of the food, " untinged, in the least degree, with bile. Sometimes they are of " a light yellow colour, which denotes a very deficient quantity " of healthy biliary secretion; they may also be of a deep olive, " of a clay brown, and of a blackish brown; all which shew a vi-" tiated state of the biliary secretion."

These disordered states of the chylopoietic viscera, to which our author invokes the attention of the surgeon, as accompanying local diseases, and obstructing their cure, may subsist without any organic change taking place. Mr A. has examined the bodies of a considerable number of those who have died of local diseases complicated with this disorder of the primæ viæ, in which the secretion of the bile had been altogether suppressed, or faulty in quality, without discovering any alteration of structure. In other cases, however, where the disordered state of the bowels had been of longer duration, he has found the villous coat of the intestines swoln, pulpy, turgid with blood, apparently inflamed, and sometimes ulcerated. The liver has also been found diseased and tuberculated.

The general inferences are thus summed up:—

1. " Sudden and violent local irritation will produce an equally sudden and vehement affection of the digestive organs.

2. " A slighter degree of continued local irritation, will produce a less violent affection.

3. " This affection is a disorder in the actions, and not a disease in the structure of the affected organs; although it may, when long continued, induce evident diseased appearances, both which circumstances are proved by dissections.

4. " A similar disorder of the digestive organs occurs without local irritation, and exists as an idiopathic disease, in which case, it is characterized by the same symptoms.

5. " There are some varieties in the symptoms of this disorder, both when it is sympathetic and idiopathic.

6. " The disorder probably consists in an affection of all the digestive organs in general, though in particular cases, it may be more manifest in some of those organs, than in others.

7. " That disorder of the digestive organs frequently affects the nervous system, producing irritability, and various consequent affections. This is proved by the effects of blows on the belly in persons previously healthy; and the same consequences are often observed, from whatever cause the disorder originates.—

At the same time, weakness must be produced from imperfect digestion; and from the combination of these causes, viz. weakness and irritation, I deduce the origin of many local diseases, and the aggravation of all."

Such disorder of the chylopoietic viscera, whether idiopathic or induced by the irritation of local diseases, is productive of a great variety of morbid symptoms, abolition of the functions of the brain, delirium, muscular weakness, irritation, and pain, tremors, and palsies, and aggravation of existing local diseases; and in particular, from continuity of surface of the stomach, local diseases of the throat, mouth, lips, nose, ears, and skin, may be orginally caused, or aggravated by this complaint.

In the treatment of these disorders of the digestive organs, which are connected with surgical diseases, Mr Abernethy, considering the disordered parts to be in a state of irritability and weakness, directs his measures to diminish the former, and allay the latter. A simple regimen, and that diet which best agrees with each patient, moderate exercise, and a due regard to former habits, are recommended. Regularity of the alvine discharge is included—And nature, when necessary, must be assisted by laxative medicines. The object is to excite the peristaltic motion of the bowels without purging. In giving purgative medicines, he endeavours to combine them, so as to excite, and strengthen at the same time. Thus, rhubarb, colombo, and kali vitriol. are given together, or an infusion of gentian with senna, or tincture of rhubarb, or the following draught twice or thrice a day.

Rec. Infus. Gentian. comp.—Unc. unam.
Infus. Sennæ.—Drachm. duas.
Tinct. Cardamom. comp.—Drachm. unam.

When the biliary secretion is defective or faulty, it is to be corrected by such small doses of mercury as do not irritate the bowels, and are not likely to affect the constitution, even though persevered in for a considerable time.

In short, the general remedies employed in dyspeptic complaints are useful in this; tonics, the bark and chalybeates, are of the number—and with regard to the vegetable diet-drinks often used in local diseases, Mr A. observes, that it is by amending the disorders of the stomach and bowels, that they are efficacious.—"When diet-drinks fail to correct the disorders of the digestive organs, they also fail to produce any amendment on local diseases."

In illustration of the general doctrine, Mr Abernethy next relates a variety of cases. These are classed in different sections;

1st, Cases of paralytic and other affections of the nervous system, connected with disorder of the digestive organs, and relieved or cured by the restoration of these functions.

A young lady whose stomach and bowels were disordered, complained of pain in the loins, and weakness of the lower extremities, and perceived no relief from blisters applied to the spine; the bone however was not diseased, and she recovered by general treatment.

A young man, whose limbs were palsied, had been previously subject to severe disorder of the bowels, after which had supervened headach, imperfect vision, paralysis of the lower extremities, and of the bladder, impaired speech, and weakness also of the arms. When admitted into the hospital, there was complete paralysis of the lower extremities, and great debility of the upper; the bowels were also much disordered. Two grains of calomel, with eight of rhubarb, were taken twice a week; and infusion of gentian with senna occasionally. At the end of three weeks, the bowels became regular, the biliary secretion healthy, and his appetite good; the eye sight was much improved; the hands and arms became nearly as strong as ever; the functions of the bladder were restored; the speech became articulate; there was no amendment however in the state of the lower extremities.

The next case was also one of palsy of the lower extremities, supposed to originate from disease of the spine; she was subject also to attacks resembling epileptic paroxysms; the bowels were greatly disordered—She was attacked in the hospital with fever, and died.

There was no diseased appearance detected in the brain, and no disease of the vertebræ. The intestines were inflamed and ulcerated, and the bile was of light green colour, and very fluid.—Such cases Mr A. is led to believe, from his own observations, are very frequent. In such, there is no organic disease of the brain, and the nervous affections seem rather to depend on the disorder of the digestive organs. Cases also of wasting and imbecillity of the limbs, of muscular affections, and nervous pains of the nature of the tic douloureux, Mr A. has known cured, by correcting the unhealthy state of the digestive organs. He suggests too the propriety of attending to the state of the bowels in tetanus

2d, Cases in which Local Disorders of the Head, produced by blows are kept up, and aggravated, by affections of the digestive organs

The sympathy existing between the head and the stomach, has been long observed. Vomiting, and other symptoms of disorder of the last, are the immediate consequences of injury done to the first. And the cases produced in this section are intended to show that this disturbance of the stomach, even when moderate in degree, will often re-act upon the head, so as to occasion an irritable state of the injured parts, and impede their recovery.—The secondary symptoms, which are recorded in these cases as seperrening to blows on the head, sometimes after the first accident had been forgotten, and conected with symptoms of disorder of the stomach and bowels, are nearly the same which accompany the slow inflammation of the brain, and membranes, or contused and necrosed bone, consequent to such accidents. But here the symptoms seem to depend rather upon irritation, communicated by the disordered state of the digestive organs, than on local disease of the head: This Mr Abernethy at least thinks may be fairly inferred from their ceasing so immediately when the disorder of the digestive organs is corrected. Such symptoms then may be the effect of local inflammation, and disease, or of sympathetic irritation only. But we see no grounds for discriminating the cases, except what are derived from the result of the treatment.

The last case was a recent accident, and appears to us an example of pure concussion; the man was very freely and repeatedly bled, and then purged with calomel and rhubarb. He passed much highly offensive feculent matter, of a light greenish yellow colour. By persevering in the use of purgatives, till the discharges became healthy, the man got well. Purgatives we believe are very commonly given in such cases. We have often employed them with the best effects.

3d. Already Mr Abernethy has called the attention of practitioners, to certain diseases of an equivocal nature, in appearance venereal, yet, in the apprehension of some celebrated practitioners, not syphilitic. Already we have stated our opinion on this subject. And we have not yet been able to learn from Mr Abernethy, what are the circumstances that determine him to consider this a syphilitic, and that a pseudo-syphilitic case, unless it be the declaration of the patient himself, and the event of the disease, ceasing without the assistance of medicine. In the 3d section of the book now before us, he states, that a disorder of the digestive organs constantly exists in those pseudo-syphilitic diseases of the throat, skin, and bones, and produces, or at least aggravates, and protracts, a state of weakness and irritability of constitution; to which the origin of the disease must undoubtedly be referred.—Of the cases which are now brought forward, we remark, that in some, mercury had been employed with good effect, particularly in the first; and that in others, the recovery cannot fairly be attributed

buted to the treatment directed merely to the bowels, as the disease is by petition one which exhausts itself, or which ceases spontaneously. And it is still a question how far the venereal disease itself may be modified in particular constitutions, so as to get well without mercury.

4th, The next class of cases is that of unhealthy indurations, abscesses and sores, local diseases which often break out in succession, in different parts of the body; and this, it is remarked, is a circumstance strongly presumptive of their being connected with some error of the health in general. Accordingly, Mr A. states, that he has observed that they are seldom unattended with diserder of the digestive organs. "I can confidently affirm" he adds, "that those diseases in general become tractable, in proportion as "the disorder of the viscera is corrected; and that frequently no "new local symptoms occur, after some attention has been paid "to the state of the digestive organs."—Several cases are related in illustration of this remark:—Cases of spreading ulcerations, cutaneous affections, ulcerated tubercles, carbuncles; scrofulous affections, sequelæ of small pox, painful indurations of the breast, and other diseases of a like kind, which had resisted the usual local treatment, but appearing complicated with disorder of the viscera and biliary secretion, were relieved or cured by general treatment, by small doses of mercury, occasional laxatives, and infusion of gentian.

5th, *Disorders of parts which have a continuity of surface with the Alimentary Canal.*

The cases and observations given under this head, are spasmodic strictures of the œsophagus, of which an interesting example is communicated; diseases of the mouth and throat, carbuncles, ulcerations, and herpetic eruptions of the nose, ozæna, ophthalmia, herpetic, and other diseases of the skin: Such cases often appear connected with the disorder of the general health, and more especially with that derangement of the digestive organs, the influence of which, on local diseases, it has been the object of our author to investigate.

6th, *On the causation of other diseases, by those of the digestive organs.*

Apoplexy, palsy, and epilepsy, are commonly direct diseases of the brain, from morbid alteration of its stricture. Yet these diseases do sometimes take place, without any visible change in the structure of that organ being detected on dissection. The experience of Mr Abernethy has amply confirmed the observation; and he concludes, therefore, "That disorder, and abolition of the nervous functions, may take place, without any organic affection of the brain." The connection between the brain, and the stomach, and the mutual influence, and reciprocal action of disorders of the brain, and chylopoietic viscera, have been long observed, and acknowledged. And we are thoroughly convinced, that physicians would do well to keep this constantly in memory. We believe, that much light may thus be thrown on the pathology of some obscure diseases; and that important practical applications may be deduced from a careful observation of the connexion, between primary disorder of the chylopoietic viscera, and cerebral diseases.

The interesting observations on the marasmus of childhood, and youth, delivered by Dr Hamilton, in his book, on the administration and utility of purgative medicines, must be fresh in the memory of most of our readers. He has there advanced, that this which is originally a disorder of the digestive organs, is not only often attended with symptoms resembling those of hydrocephalus internus, but may, on some occasions, actually give rise to that disease, by impairing the vigour of the constitution, and by favouring the effusion of water, into the ventricles of the brain. In our review of that publication, we have stated our opinion, that derangement of the biliary organs is particularly interested in the causation of this disease. Knowing therefore, the full importance of the subject, we have been much gratified with Mr Abernethy's general observations, and shall quote, without farther comment, that passage which more particularly relates to the doctrine in question.

> "I have examined the bodies of six patients, in whom disease most certainly began in the abdominal viscera, and was continued in them, to the conclusion of their lives. Nevertheless, the patients seemed to die rather of nervous disorder, than of disease of the parts first affected. One of the patients died, affected with apoplectic symptoms, and five with hemiplegia."
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> "In all these cases the liver was greately diseased, and the bowels also exhibited a diseased appearance. In three of the cases, there was considerable inflammation of the membranes of the brain; and a good deal of water in the ventricles. In two of them, no morbid appearance of the brain was discovered. I have also examined a child, who was supposed to have died of the hydrocephalus, accompanied by great disorder of the stomach, and bowels. In this case, the bowels were inflamed, the liver sound, and the brain perfectly healthy in appearance; yet there had been so great a diminution of sensation and motion, as to leave no doubt of the existence of hydrocephalus."

These observations on the influence of disorders of the digestive organs, are brought to a conclusion, by a few remarks on *their* relation to pulmonary complaints, and diseases of the heart and arteries. The connection between pulmonary affections, and disorder of the liver, was first suggested to Mr A. by Mr Boodle of Ongar, in Essex. The observations, and dissections, made by Mr Abernethy, have also tended to prove, that the chylopoietic viscera were the seat of the greatest and most established disease, and that the pulmonary affection was a secondary disorder. The liver was greatly diseased, and the lungs were also beset with tubercles, yet a considerable portion of those organs was sound.

We learn also from Mr A. that Dr Curry, of Guy's Hospital, has prosecuted the same tract of investigation, and we are happy to understand, that he is now preparing to lay before the public, his " Observations on the Influence of the Hepatic Functions, on various forms of Disease."

On Diseases of the Urethra, particularly of that part which is surrounded by the prostate gland.

The disease described under this title, is characterised by dysuria, and the common signs of irritable bladder; there is often a sense of torpor and pain of the perinæum; the bougie is arrested at the neck of the bladder, occasions great pain, and when withdrawn, its point is covered with blood and mucus. In these cases, there is stricture and irritability of that part of the urethra, which is surrounded by the prostate.

Sometimes the prostate is, at the same time, diseased, and enlarged. It may be complicated also with strictures in other parts of the urethra, or with disease of the bladder itself; but more frequently it exists as an original and independent disease. The stricture is removed, and the irritable state of the parts subdued by the introduction of the bougie; but sometimes the symptoms are rather aggravated by it, and at others, it fails to produce the expected relief—warm bathing of the perinæum is also recomended.

The species of Nævi Materni, described by Mr Abernethy, is that congenital deformity which consists in a cluster of enlarged vessels, filled, and occasionally distended, by the influx of blood, from numerous surrounding arteries. Two cases are related. The one a monstrous enlargement of the vessels, distributed every where beneath the fore arm, from the wrist to the elbow, so that the diseased arm was twice the size of the other. The vessels were large, and, contorted, and according to the expression of the child's mother, tended to sanction such institutions by public authority? Even so. By this arrangement, individuals may perish, whom more skillful physicians might have saved. But even now they perish, and thousands besides. Let the many be saved in the first place, and then the few. While we look with indifference on the present state of the poor, routine practitioners are not to be despised. Instructed *routiniers* are surely preferable to the numbers who now practice without instruction, more especially, when we consider, that although there are many learned physicians, there are none truly scientific, whose theory and practice are one and indivisable. What is that power in nature which imparts life to animals, and motion to the univerſe? What the process which each moment wastes the individual, and, by the same act, recruits him; which excites and removes diseases, and by which external nature, and of course remedies, operate on organization? Till these questions can be answered in a satisfactory manner, with regard to the individual to be treated, all pretensions to perfect rationality in practice must be renounced. This deficiency is the reason why experienced empiricks so often practise better than superficial theorists. The medical science of both is on a level; but the latter do not act so well as the former, because they mistake the glare of hypothesis for the light of truth. But in recommending the formation of *routiniers*, it is by no means conceived, that they alone are sufficient for the necessities of the state. If left entirely to themselves, they would become careless and indifferent, and each succeeding generation, by copying the bad, as well as the good, would be worse than that which preceded it. Men of learning and science are absolutely necessary, both for the formation of *routiniers*, and as active powers in the machinery for improving the art, possessing, in themselves, the means of their own improvement, and capable of approximating the mass to their own standard.

The learned physician, in contradistinction to the *routinier*, is said to be the scientific physician. Scientific, however, he is not, but must have a tendency to become so, and must endeavour, by uninterrupted approximation, to produce in himself his ideal prototype. Let the object of the scientific pupil's exertions be the science itself, with which no reference to its application must interfere. Let him endeavour to develope it in himself, to identify it with his mind, which he is to constitute its living organ inseparable from it. Hence, let the teacher be not merely the instrument of instruction, but rather serve as an example how the whole mind must be devoted to science. Only in this way can he become, what he ought to be, actual proprietor, and not merely tenant of what has been communicated to him; creator in himself of a portrait of nature which shall resemble its original. Let him enter his proper school after he has become possessed of all the literary aids, whose acquisition excites the genius, and renders easy the access to the sources of science, which should be opened to him by philosophy. Let the knowledge of those truths, with which the ancients were acquainted, serve him as means to obtain his ends; and let the history of the errors of the human mind caution him against the numerous paths by which he would in vain attempt to attain his object. But in this, let him guard against excess. For this colossus encreases with the revolutions of time, and absorbs every power which would have had a nobler purpose in the appropriation of real knowledge. So long as science is not developed in its whole extent, only the method to be employed in seeking it can be laid down, but by no means the method of communicating it.

The philosophical physician must combine cautious speculation with pure empiricism. The latter will take up the facts at the limits beyond which speculation cannot penetrate, while the former will guide him from generals to particulars, from principles to phœnomena. Operating thus in harmony with each other, empiricism will compare the laws developed by ratiocination with experience, while each fact promulgated by experience will find a philosophical sanction in speculation. The philosophical physician is himself the prototype of the school in which alone he can be educated. Its organization must be on a level with the state of the science itself, and keep equal pace with it in its progress towards perfection. To science and art it must unite learning. This triad is exclusively the right and the duty of Universities, in regard to the education of scientific physicians.

The medical *routinier* is characterized partly by his practice being mechanical, partly by being confined within the sphere in which he is employed as an instrument. Like the scientific physician, he must possess sufficient natural endowments. He must represent to himself an object and the means of obtaining it; but only as a psychological automaton, who, like the land-surveyor and arithmetician, knows the rules according to which he acts, but is ignorant of the principles from which these rules are derived. He must be able to distinguish the varieties of disease by the symptoms, although he does not comprehend their causes, and know the effects of remedies against them, although he is ignorant of their mode of action. He is occupied with art, not with erudition; with what is, not what should be; with the fact, not the cause; with the existence, not the possibility; with the individual, not the genus; with what is real, not what is ideal. The *routinier* is merely a means employed in the service of others, and his education must therefore be limited to its object. By carrying it farther, he may indeed become more useful in himself; but in reality, less useful for the purpose to which he is destined. *Routiniers* must therefore be classed according to the degree of their perfection, and be appointed to corresponding situations. An arrangement must be made of the applications of medicine, the most indispensible being placed in the centre, the least necessary and general in the circumference, so that the studies of the *routinier* may be confined within a narrower circle or extended, according to circumstances. But this arrangement must not have any reference to the division of medicine into several branches, but merely to the degree of dexterity. For the *routinier* must be a healing artist in the most extensive sense of the term, and in possession of all the means of curing. He must be physician, surgeon, accoucheur; for the poor, for whose service he is destined, cannot afford to pay different individuals for different species of assistance. Lastly, in his appearance, manners, language, and mode of thinking, in short, in his manner of communication, he must exactly resemble the common people, that he may not be offended by their coarseness, and may react upon them with greater energy. Thus will he gain their confidence, and contribute, more than the learned physician, to crush quackery.

According to this plan, since the practice of the *routinier* is confined within a certain sphere, he will in a short time acquire an uncommon degree of dexterity, and become eminently useful, if, in his formation, natural abilities, and adequate instruction be united; and from this sketch of him must the organization of his school be deduced. For the good of the state, academies for *routiniers* are more necessary than universities for learned physicians. The latter may be educated abroad, the former must be instructed at home. These academies must not be situated in the same place with a university, lest the routinier be excited to envy, and to depart out of his sphere. The teacher in these academies requires more power and self command, than in universities. He must be a philosopher, and a scientific physician: He must possess a microscopical accuracy in elucidating particulars, as well as a mind capable of comprehending the whole. His mode of delivery must be positive, not argumentative; dogmatical, not critical; popular, not learned. He must be acquainted with the sphere of his action, and allow nothing to draw him out of it. He must possess peculiar talents, and must have been instructed how to apply them. The state must reward him according to his deserts; but he must devote himself to instruction, and be interdicted from writing for his bread, or practising, except in the hospital, or engaging in any other occupation whatever.

The education of the routinier must be limited to what is practically useful. He has nothing to do with the history or literature of medicine, with medical police or jurisprudence, comparative anatomy, the veterinary art, and many other subjects of the like nature. The course of instruction must therefore be fixed according to the future destination of the *routinier*. After an adequate preliminary education, he must be taught the natural philosophy of man in its healthy state, comprehending anatomy and physiology; the same in its morbid state, in conjunction with therapeutics, and the means of cure. These may be divided into mechanical, physico-chemical, and mental. Of the latter, he must learn only what is most indispensable. He must be made acquainted with the indigenous and officinal plants, and learn something of poisons and their cure. He must collect the officinal plants for the hospital, and prepare them for use, that he may be accustomed to cheap remedies, such as the poor can afford. With materia medica, chemistry pharmacy the art of writing receipts and dispensing medicines are connected. He should prepare the chemical medicines for the hospital. With the rare and difficult operations he has nothing to do; but he must be well instructed in the treatment of wounds, ulcers, dislocations and fractures, in the art of applying bandages, and in the taxis of hernia. He must be versed in the diagnosis and treatment of easy and quick labours, but must call in assistance in the difficult. His dietetical information must be directed to the field in which he is to act. It would be preposterous to caution the postillion against the danger of getting wet, or the poor against indulgence in eating; but let him exterminate their prejudices, and instruct them in the attentions due to the sick.

There is an absolute want of books proper for the use of the *routinier*. They ought to be published under authority, and written according to a positive plan, by the professor of the institute, in the pure spirit of empiricism, and with a reference solely to the mechanism of practice. They will serve to direct the professor in his instructions, and as manuals to the pupils, who must not be permitted to take notes in the lecture room. There must be an hospital connected with the institution for practical instruction, where the pupil may be exercised in bathing, rubbing with the flesh brush, and other parts of the mechanical treatment of the sick. The course of instruction may last from three to five years, and may require four professors.

The institution must be placed under the superintendance of the state, which must support it. But the hospital will serve as a poors hospital, and the pupil, or his parish, should pay so much of his necessary expences, as may excite his industry, but not be disproportionate to his future income. Universities must be prohibited from receiving pupils from the institution, lest it should encourage desertion, and excite *doctromania*. But occasionally the most distinguished may be sent to them, not arbitrarily, but according to fixed regulations.

There must be daily examinations and exercises; and, at the termination of each division of the course, a more formal examination, of which the result must be recorded. At the completion of the whole, is the final examination, when the pupils are to be divided according to their merits into classes, to which there are corresponding posts. He who deserves most should earn most; and the parish which can afford most, has a right to demand most. This is but reasonable for both parties. On his leaving the institution, he must get a suitable collection of instruments, and of practical books, written in the style already observed, for which an adequate price must be paid.

The state must be divided into districts, such as a *routinier* is capable of attending; but he must neither be tied down to his district, nor his district to him, despotism in matters of health is worse than any other despotism. Monopolies extinguish, competition awakens genius. If the treatment of the parish poor forms part of his duty, he must be paid for it by the parish.

"Where *routiniers* and scientific physicians practise in the "same place, the public may chuse which of them it will, as "now it chooses between the physician and corporation surgeon. "Can we, without being guilty of an absurdity, grant or refuse "leave to practise to the same individual, because it happens to "be in the country or in the town? Must not, in both places, the "rules of practise be the same? Must not rational beings, of "equal rank, be every where treated in the same manner? Phy-"sicians who must be protected by external aid, are not worth "protection. Let them maintain their own superiority. This "mutual relation will awaken an emulation advantageous to the "art, and to the public. Over the shallow pupil of the barber's "shop, the physician easily triumphs, but he will be afraid of the "able *routinier*, lest he get the better of him, if he be indolent or "incapable. In like manner such institutions will excite the uni-"versities to greater exertion, that they may preserve their superi-"ority, and rise above the sphere of empiricism."

We have thus endeavoured to give an abstract of Dr Reil's opinions; but of our success, we are extremely doubtful. The eloquence, the enthusiasm of his style, cannot be transfused into a tame analysis, as ours necessarily has been, while his faults, the occasional insufficiency of his arguments, and the want of arrangement, are not concealed. We have purposely avoided giving any opinion on the merits of the plan. Its boldness and originality cannot be denied; its practability, and even its utility, may be doubted. Medical reform is so vast, so intricate a subject, involving so directly, not only the undoubted privileges of so many corporate bodies, but the interests of the whole profession, indeed of the whole community, that we must candidly confess our opinions regarding it, are as yet unsettled and unsatisfactory, even to ourselves. Since, however, the question has been agitated, it should not be relinquished, until it has undergone a thorough and deliberate investigation, both as a subject of abstract speculation, and as having a direct reference to the rights and privileges, the prejudices and opinions, which already exist. To this investigation we shall impartially afford every facility in our power, convinced as we are, that the advocates for, and opposers of, medical reform, have the same objects in view, the good of the community, and the advancement of the profession.

VI.

Versuche und Beobachtungen über die Würksamkeit der thierischen Gelatina zur Heilung intermittirenden Fieber. Vom Dr Giuseppe Gautieri delegato Medico des Departements von Ancona. Uebersetzt und mit Anmerkungen begleitet vom Dr Bischoff Arzt zu Berlin.*

It would be unjust, as well as illiberal, not to acknowledge with gratitude, the many improvements in science, for which we are indebted to our rival neighbours the French, but we must also be upon our guard, not to be misled by the exaggerated praises they bestow on every discovery, however trifling, which they ascribe to any of their countrymen, and by the zeal with which they propagate these as widely as their language is understood. Indeed, to this spirit of nationality are the French sçavans, as much indebted for their celebrity, as their generals for their victories. Of the truth of this remark, the essay before us is a striking example. Seguin anounces the discovery of a fact, and draws from it a conclusion, which leads him to adopt a particular remedy in intermittent fever, and his praises are echoed from Ancona to Berlin. Let us examine how far they are merited. The fact is simply this, an infusion of genuine cinchona bark is precipitated by an infusion of gall-nuts, but to the merit of discovery, in this instance, Seguin's pretensions must be set aside. It was previously published by our countryman Dr Maton*. Seguin, however, was certainly the first to conclude from this re-action, that cinchona contained gelatine, and that to this gelatine its febrifuge powers were owing. Now, as it has been proved, that cinchona contains no gelatine, the whole merit of Seguin's reasoning founded on that false conclusion, falls to the ground. But he was led by it to propose the use of gelatine as a substitute for cinchona, in the cure of intermittents; and as truth sometimes springs out of error, he may have thus accidentally contributed to the advancement of the healing art. Even here, however, we are not disposed to allow him credit for originality, or the skillful application of an accidental discovery. For surely no one will pretend, that Seguin was the first to prescribe light animal food in agues; and most certainly it is no improvement in its exhibition, to substitute for beef-tea, gravy soup, portable soup, and calf-feet gelly, or even for the more homely, but not less wholesome dishes, cow-heel, and ox-cheek, a nauseous and disgusting solution of carpenters glue. Instead, therefore, of agreeing in opinion with Dr Gautieri, who thinks, if gelatine and glue shall be proved capable of curing even slight intermittent fevers, Seguin's name worthy of immortality, and who classes him as an inductive philosopher with Bacon; we can only allow Seguin the praise of having extended, by a series of blunders, the opportunities for observing the effects of animal jelly in intermittent fevers.

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* See Journal der practischen Heilkunde herausgegeben, von C. W. Hufeland, 18ter Band, 2tes Stück, 8vo., Berlin, 1804.

In this point of view, the essay before us is not without interest, although many circumstances conspire to prevent us from relying implicitly on our authors accuracy. It were needless to enumerate the Italian villages in which, or the Italian doctors by whom, this remedy was found to be successful, in all the varities of Febris Tertiana, Quartana, Quotidiana, Subcontinua, and Continua; it is sufficient to quote our authors conclusions from them. " Such a variety of facts, and the unanimous testimony of so many impartial physicians, irrefragibly controvert all the arguments of those who are disposed to deny the great efficacy of glue. Who would have believed, that in the space of four months, and in this department alone, above 250 intermittents should have been cured by means of glue; in many cases, concentrated glue not only equals, but surpasses cinchona in point of efficacy."

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* Medical and Physical Journal, Vol. V. p. 35.

As might have naturally been supposed, other animal jellies were found to be as efficacious as the fetid and nauseous carpenters glue, but we must confess, that we should not have been led by analogy to trust the cure of a double tertian to gum-arabick, which, however, we are here told was effected by Calatroni, with only two doses of half an ounce each. We could have wished, that the immediate effects of these substances on the animal economy, in its sound and morbid state, had been detailed with greater perspicuity, and in a more judicious arrangement, but the wildest hypotheses are so intermixed with facts, and the grossest ignorance so combined with observation, that it is not easy to separate the one from the other.

Sthenic intermittent fevers, he informs us, when treated with glue, assume a continued type, as do also asthenic intermittents when they are nearly cured. But this continuity lasts only one or two days, and generally ceases towards mid-day, when it seems to take on the character of synocha, which disappears without further aid. But only those sthenic intermittents treated with glue became continued, which had been previously treated with cinchona. The disease then not only assumes a more dangerous type, but is much more obstinate, and continues for several days or weeks.

> " In these cases, the effects of cinchona and glue are almost identical. Both suspend the cold fit, interrupt and destroy the regularity of the paroxysms, and at last put a stop to them, as the patient approaches to a state of convalescence. I consider it is a certain indication of the action of the glue, when the cold fit is suspended, and as a harbinger of reconvalescence, when the fever becomes obviously continued, which also not unfrequently takes place, under the use of cinchona. This fever is often so inconsiderable, that the physician only, and not the patient, is aware of it. It is, however, observed that the patient is disposed to sleep, is unwilling to be disturbed, and when awaked, yawns and stretches himself, the pupils are unusually dilated, and the eyes sensible to light, sweat appears on the forehead, and moisture over the whole body, the hair shines from sweat, the countenance is unusually pale, the tongue whitish and furred at the sides, the patient complains of uneasiness, drowsiness, and want of appetite, and the pulse is small and soft, but frequent. It very seldom happens that the fever entirely abates, and suddenly disappears."

Instead of being satisfied with the fact, that glue, like cinchona, suspends the regularly of intermittent paroxysms, Dr Gautieri loses himself in a long digression, in which he attempts to explain how an animal substance should have the same action with a vegetable, and at last solves this important problem by discovering, *risum teneatis amici*, that both cinchona and glue contain a large proportion of tannin!

describe a plant or an animal, they have resolved to devote to each department of their subject a separate work, so that, without increasing the expence of the whole, the discoveries in each science may be had separately. Their travels, properly so called, which will include every thing relating to the general physics of the country, the origin of its inhabitants, their manners, intellectual culture, condition, its antiquities, commerce and political economy, are delayed to the last. In the mean time, to satisfy public curiosity, they proceed with the following works.

1. An abridged account of travels into the interior of America during the years 1799, 1800, 1, 2, and 3.
2. A collection of astronomical observations and measurements.
3. An essay on the geography of vegetables.
4. Equinoctial plants.
5. Observations in zoology and comparative anatomy.

The first fasciculi of the two latter publications have reached us, and we hasten to communicate to our readers the most interesting part of their contents. In a preface to the equinoctial botany, written by Humboldt, we are informed that it is chiefly the work of his able coadjutor, who, in the midst of all their fatigues, and often at the expence of his night's rest, prepared and dried sixty thousand specimens of plants, many of which Humboldt found time, notwithstanding his other occupations, to delineate on the spot. The number of new species and genera they have discovered will not appear surprising, when we consider, that they traversed the interior of America, from the Caraças to the frontiers of Brazil, through a great extent of territory which had never before been visited by any botanist. In transporting such extensive collections many thousand miles by land, the difficulties appear almost insurmountable, and yet they only met with one loss of consequence, in a vessel which was shipwrecked on the coast of Africa. In these splendid fasciculi, they do not follow any arrangement, but give in succession delineations and descriptions of such plants as they have sufficiently compared with those of the same family already known. Each fasciculus, except the first, will contain ten plants, and ten fasciculi will form a volume. When this work, in which the detail is very minute, shall be sufficiently advanced, they propose to publish, in Latin, in 8vo, and without plates, an abridged description of all the plants they have brought with them, in the manner of Smith's Flora Britannica.

In the first fasciculus only one plant is described, constituting a new genus of the family of Palms, to which they have given the name *Ceroxylon*, from its singular property of affording wax. It is only found on the mountains of Quindiu, consisting of granite and micaceous schistus, in 4° 35′ north latitude. Its habitation

tion is a singular phenomenon in the geography of vegetables. Tropical palms, in general, do not grow at a greater height than 500 toises above the sea, but the wax palm is not found below 900 toises, and grows abundantly at 1450, where the mean temperature is from 66° Fahr. to 68; or 1000 toises higher, and at a temperature 30 degrees lower than the rest of the same family. It is also, perhaps, the tallest tree in the world, rising even to 180 feet, and having leaves 20 feet long. But the most remarkable circumstance about this elegant palm is, the secreted substance with which its trunk is covered, to the thickness of about two inches. According to Vauquelin's analysis, it consists of two-thirds of resin and one of wax. It is extremely inflammable, and is used by the natives, melted with one-third of tallow, for the manufacture of candles.

The second fasciculus contains the Matisia cordata, Jussiæa sedioides, and natans, Myrtus microphylla, Freziera reticulata, canescens, sericea, and nervosa, and the Cinchona condaminea. The last of these is so interesting an article of the Materia Medica, and even yet so much involved in ambiguity, that we transcribe its description.

"CINCHONA CONDAMINEA. Pentandria Monogynia *Linn.*
"Ordo Naturalis, Rubiaceæ, *Juss.*
"Character Genericus. *Juss.* p. 201; *Schreb.* Gen. Plant. 301;
"*Gaert.* De fruct. et sem. p. 167, t. 33, f. 4; Flora Peruv. et Chil. t. 2, p. 50.
"SYNONYMIA. Quinaquina, *Condam.* Act. Paris. 1738; Cinchona officinalis *Linn.* Spec. edit. 2, p. 244; Syst. veget. edit. 10, p. 929; *Lam.*, Encycl. pl. 164, f. I.; *Lambert*, A description of the genus Cinchona, fig. I.; *Wild*, Spec. plant. p. 957.
"Foliis ovali-lanceolatis, nitidis, infra ad axillas nervorum scrobiculatis; corolla limbo lanato; staminibus inclusis; capsulis ovatis.

"Arbor procera, elegans, foliis semper ornata, sectione ex undique succum luteum, adstringentem, exhibens. Truncus erectus, bi-aut tri-orygalis et ultra, quindecim unciali diametro, cortice rimoso, cinereo. Rami teretes, decussatim oppositi, erecti, brachiati; junioribus ad nodos obsolete quadrangularibus. Folia nitida, ovali-lanceolata, tripollicaria, petiolata, in axillas nervorum inferne scrobiculata. Petiolus folio sexies brevior, superne planus, inferne convexus. Scrobiculus liquore aqueo adstringente scatet, orificio pilis subclauso. Stipulæ duæ, acutæ, sericeæ, adpressæ, caducæ. Panicula terminalis, brachiata, foliosa, trichotoma. Pedunculi et pedicelli pulverulento-sericei, teretes. Flores albo-rosei, bracteolati. Calix campanulato-globosus, quinque-dentatus, pulverulento-sericeus; pariter ac pedunculi, dentibus acutis, brevissimis, adpressis. Corolla subhypocrateriformis, calice sexies longior; tubo obsolete pentagono, sericeo, sæpius roseo; limbo rotato; laciniis ovalibus, tubo multo brevioribus, supra lanatis, niveis. Ovarium globosum, disco epigyno, quinque tuberculato, coronatum; stylus vix exsertus; stigma bifidum. Capsula ovata, lignosa, longitudinaliter lineata, dentibus calicinis coronata, bilocularis, polisperma, opposite bisulcata, a basi ad apicem, bivalvis. Semina plurima marginata, sursum inbricata. Receptaculum subcarnosum, elongatum, compresso-tetragonum, marginibus valvularum intro flexis longitudinaliter affixum.

"Habitat in Peruviæ Andibus, prope Loxam et Ayavacam."

The plant, so accurately described, was ascertained to be the very Cinchona delineated by Condamine, and is characterized by the pits or holes at the roots of the large nerves of the leaves. The genus was established by Linnæus in 1742, in the second edition of his genera. This was the only species then known, and he gave it the trivial name of *officinalis.* But since 1767, when he published the 12th edition of his Systema, no less than four different species have been confounded under the same name; the *C. officinalis*, Linn. (1.); the *C. Macrocarpa*, Vahl. (2.); the *C. pubescens*, Vahl. (3.); and lastly, the *C. nitida* of Ruiz and Pavon (4.). This ambiguity was originally occasioned by Linnæus himself supposing that a specimen of *C. pubescens*, sent to him in 1762, belonged to the species described by Condamine; and although the latter is that which furnishes the bark most esteemed in commerce, and known by the natives under the name of *Cascarilla fina*, yet, as several other species are also officinal, we think that our authors have done right in rejecting altogether the ambiguous epithet of *officinalis*, and designating this species by the name of its discoverer.

We are almost sorry that our authors have delayed the curious particulars which they have collected respecting so inseresting an object of the Materia Medica, until they have completed the collection of materials which they are making for a monography of the genus, which we sincerely hopé no accident will prevent the publication of. We are here, however, told, that there is annually exported from America 12,000 or 14,000 quintals of Cinchona bark. Of these, the kingdom of Santa Fé furnishes 2000, which are sent from Carthagena. Previous to 1779, Loxa furnished 4000, but at present only 110 are cut, which are sent to Spain for the use of the king. The provinces of Huamanga, Cuença and Jaen de Bracamorros, and the thick forests of Guacabamba and Ayavaca, furnish the rest, which is sent from Lima, Guayaquil, Payta, and other ports on the south sea. The *Cinchona Condaminea* always grows on micaceous schistus, and is found at as great a height as 1282 toises, and as low as 975 toises above the level of the sea, so that it occupies a zone of 307 toises.

(1.) Mat. Med. p. 66. Syst. nat. edit. 10, p. 929. Spec. edit. 2. p. 244.

(2.) Act. Soc. hist. nat. Hafn. 1. p. 20. t. 3, exclusis synonymiis; *Lambert*, p. 22. t. 3; *Wild*, Spec. plant. p. 598. exc. Syn.

(3.) Act. Soc. hist. nat. Hafn. 1. p. 19. t. 2; Symb. bot. pars 2. p. 37. *Lamb.* p. 21. t. 2. *Wild*, Sp. pl. p. 958; Cinchona officinalis, *Linn.* Syst. nat. edit. 12. p. 164; Syst. veget. edit. 13. p. 178; Supplem. p. 144; *Gaertner*, de fruct. et sem. t. 1. p. 169. t. 33. f. 4.

(4.) Flor. Peruv. et Chil. t. 2. p. 50. t. 191. Cinchona officinalis *Ruiz.* *Quinol.* art. 2. p. 56.

PART III.

MEDICAL INTELLIGENCE.

Medical Reform.

THE following Advertisement has repeatedly appeared in the London Newspapers, and both on account of the high authority from which it comes, and of its immediately affecting the interests of the whole Medical Profession, it merits a conspicuous situation in this department of our Journal.

THE ROYAL COLLEGE OF PHYSICIANS in London, having received accounts from various parts of England, complaining of the number of irregular Practitioners, calling themselves Physicians, who exercise the Profession of Physic without authority, and in many instances without due Qualifications, feel it their Duty to apprize the Public of the legal Provisions to obviate this evil, and to refer them to the List annually printed by the College, (which in future they will take care to have properly circulated), in order that the Names of all those may be known, who, having been examined by the College according to Law, have been deemed competent to practise as Physicians.

Extract from the Acts of Parliament 14th *and* 15th *of Hen. VIII.*

" That it may be Enacted in this present Parliament, that no Person
" from henceforth be suffered to exercise or Practise in Physic through
" England, until such time that he be examined at London, by the said
" President and Three of the said Elects, and have from the said Pre-
" sident and Elects Letters testimonial of their approving and examina-
" tion: except he be a Graduate of Oxford or Cambridge, which hath
" accomplished all things for his form without any Grace."

By Order of the College,

JAMES HERVEY, M. D. Register.

June 25. 1805.

Highly as we esteem the talents of the Fellows of London College, and their characters as individuals, we must candidly confess, that to us the object and tendency of this act of their corporation, are not very apparent. Complaints have been made of the number of irregular practitioners in medicine throughout England, and the Royal College feel it their duty to apprize the public that *all* practitioners, who have not been licensed by them, except the graduates of Oxford and Cambridge, are irregular, and exercise their profession in defiance of the laws of the land, and that they will circulate a list of those whom they have deemed competent to practise as physicians. Do they conceive that they have fulfilled their duty, in merely apprizing the public of the alleged legal provisions to obviate the evil; or do they mean to enforce them? Do they hope to be supported in this attempt at monopoly by the public; or do they expect, that physicians, whose talents the public has been accustomed to revere, will now petition for leave to exercise them? Of their intention to give greater publicity to the names of their fellows and licentiates, no one can disapprove; but we have very great doubts, indeed, whether, in law, they are legally intitled to designate all other physicians as irregular practitioners.

Their powers in regulating the practice of medicine within a circle of seven miles round London, are much more unlimited than over the rest of England. Although, by partial favour, they never refuse admission into their corporation, to graduates of the English universities, they still have the right of refusing it, and of prohibiting them from practising in the vicinity of London. Beyond that circle, however, their charter, 10th Henry VIII., gave them no powers, and when, by the subsequent statutes of the 14th and 15th, Henry VIII, they acquired the superintendence over all England; it is most expressly stated, that they shall have no controul over the graduates of Oxford and Cambridge, which exemption, we conceive, according to the articles of Union between England and Scotland, must be extended to every graduate of any of the universities in the united kingdom, which hath accomplished all things for his form, *without any grace.*

Art. 4th, " That all the subjects of the United Kingdom of Great Britain, shall, from and after the Union, have full freedom and intercourse of trade and navigation, to and from any port or place within the United Kingdom, and the dominions and plantations thereunto belonging; *and that there be communication of all other rights, privileges, and advantages, which do or may belong to the subjects of either Kingdom,* except where it is otherwise expressly agreed in these articles."

25th, " That all laws and statutes in either kingdom, so far as they are contrary to, or inconsistent with, the terms of these articles, or any of them, shall, from and after the Union, cease and become void, and shall be declared to be so by the respective Parliaments of the said Kingdom."

Of the question at issue, these extracts are decisive, the right of practising medicine acquired in an university in either Kingdom is extended to the other, and in this liberal manner, has the treaty of Union always been understood by the Royal College of Physicians of Edinburgh, who expressly concede to the Graduates of the English Universities, the rights conferred in their charter exclusively on those of Scotland

Soho Square, August 9, 1806.

AT a numerous meeting of the Faculty, held this evening at the house of the Right Honourable Sir Joseph Banks, Bart. K. B., President of the Royal Society, Dr Harrison laid upon the table the answers he had received to the different circular letters transmitted to the Public Bodies, &c. and Individual Practitioners of the United Kingdom, in pursuance of a former resolution. He then presented the following Plan for better regulating the Practice of Physic in its different branches; which being read and considered, the subsequent resolutions were entered into:

PLAN.

" 1st, That no person shall practise as Physician unless he be a graduate of some university in the United Kingdom, and has attained the age of twenty-four years; that he shall have studied the different branches of physic in an university, or other respectable school or schools of physic, during the space of five years at least, two of which shall have been passed in the university where he takes his degree.

" 2dly, That no person shall practise as Surgeon under three-and-twenty years of age, nor until he has obtained a diploma or licence from some one of the royal colleges of surgeons or other chirurgical corporations of the United Kingdom; that he shall have served an apprenticeship of five years to a practitioner in surgery, and afterwards have spent at least two years in the study of anatomy and surgery in a reputable school or schools of physic.

" 3dly, That no person shall practise as an Apothecary until he shall have served an apprenticeship of five years to some regular apothecary, or surgeon practising as an apothecary; that he shall have studied the different branches of physic in some reputable school or schools during the space of at least one year, and shall have attained the age of twenty-one years.

" 4thly, That no man shall practise Midwifery, unless he has attended anatomical lectures twelve months, and received instructions for the same term from some experienced accoucheur, and shall have assisted at real labours.—And that no female shall practise midwifery without a certificate of fitness and qualification from some regular practitioner or practitioners in that branch.

" 5thly, That no person shall follow the business of a retail Chemist or Druggist, unless he shall have served an apprenticeship of five years to that art.

" 6thly, That none of these restrictions be construed to affect persons at present regularly practising in the different branches of medicine.

" 7thly, Whether Physicians shall be entitled to recover their fees by the usual legal means?

" 8thly, That a register shall be kept of all medical practitioners in the United Kingdom, and every person in future entering upon the practice of any branch of the profession, shall pay a fine on admission, the amount and disposition of which to be settled and specified hereafter."

RESOLVED,—1ſt, That it appears from the returns to the circular letters, that the abuses complained of do exist to a great degree in every part of the United Kingdom; and that the necessity for adopting regulations for their correction is universally admitted.

2dly, That it seems to be expedient that the plan proposed by Dr Harrison be adopted as the basis of regulation; subject, however, to such alterations as may hereafter appear to be necessary.

3dly, That Sir Joseph Banks and Dr Harrison be requested to wait again upon the Right Honourable Lord Henry Petty, to state to him the progress of the undertaking, and to consult him upon further measures.

4thly, That the following gentlemen be appointed a committee to confer and correspond with the different public bodies of the United Kingdom, upon the subject of the proposed regulations; that they be requested to report their proceedings from time to time, and to take such other steps as they may judge necessary.—Sir John M. Hayes, Bart.; Sir Walter Farquhar, Bart.; Doctors Blackburn, Harrison, Garthshore, G. Pearson, Stanger, Willan, and Clutterbuck *(Sec.)*.

5thly, That a voluntary subscription of one guinea each be received from the town and country practitioners by any member of the committee, to enable them to prosecute the important objects in which they are engaged. (The names of subscribers to be published hereafter.)

6thly, That Dr Harrison be requested to circulate the above Plan and Resolutions of this evening among the Faculty of the United Kingdom, in the manner of the former circular letter.

7thly, That since persons of every rank and occupation in life are deeply interested in the proposed regulations, the Faculty are particularly requested to submit them to the principal inhabitants of their respective districts, by convening meetings, or in any other mode which they may think proper.

8thly, That the thanks of this meeting be given to the Right Honourable Sir Joseph Banks, for his continued attentions to the Association, and the important objects of their pursuit.

August 25, 1806.

AT a meeting of the Committee held this evening, at the house of Dr Garthshore, the following letter addressed to the Royal College of Physicians, and, *mutatis mutandis*, to the different Universities and Incorporated Medical Bodies of the United Kingdom, was read and approved; and Dr Harrison was requested to transmit the same, with the Plan and Resolutions as above stated.

" *To Sir Lucas Pepys, Bart., M.D., F.R.S., President, and to the Fellows of the Royal College of Physicians, London*

" Gentlemen,

" I am requested by the Committee nominated at a late numerous meeting of the Faculty at the house of the Right Honourable Sir Joseph Banks, to transmit for your consideration a copy of the proceedings and resolutions then agreed to, on the subject of a proposed medical reform.

" The Committee are decidedly of opinion, that the object in contemplation can by no means be so effectually accomplished, as by their acting in conjunction with the Royal College of Physicians of London, and the other incorporated medical bodies in the United Kingdom, the rights and privileges of which it is, they think, highly desirable to maintain, and perhaps to extend by legislative provisions, as far as may be necessary to attain the desired purposes. I am, therefore, also requested by the Committee respectfully to desire, that the College will depute two or more of their body to confer with an equal number of the said Committee, at such time and place as may be convenient, in order to consider of a plan of procedure, which, while it preserves inviolate the rights and privileges of the different corporate bodies, shall afford protection to the regular Faculty throughout the United Kingdom, against the ignorant and unskillful, and insure, in future, to the community practitioners qualified, both by education and knowledge, for the respective important stations they shall assume.

" I have the honour to be, Gentlemen, your most obedient humble servant, E. HARRISON."

" *Some Account of the* General Hospital *and* Medical School *at Vienna.*"

VIENNA is indebted to the active benevolence of the Emperor Joseph II., for the establishment of this large and useful institution. Formerly a poor-house, or charitable institution for invalids and orphans, founded by Leopold I., and enriched by successive endowments, stood in the situation where the General Hospital is now placed. These were removed into two separate houses, in the year 1780, when the Emperor Joseph carried into execution his plan for building a very large hospital, capable of receiving all the sick, under one general establishment. The scale on which this is founded, is extensive, and it is considered one of the first institutions of its kind in Europe. To one unaccustomed to see such splendid establishments for the sick and infirm poor as are to be met with in every part of the British dominions, the hospital at Vienna must indeed be very striking, But there is something so irreconciliable with our ideas of a perfectly neat and well regulated hospital, in the attachment to dirt, and the neglect of propriety and cleanliness, so universally prevalent among the lower orders of people on the Continent, that an Englishman must be allowed to retain his national prejudice, and to speak warmly in praise of any charitable institutions of Germany, only by comparing them with one another, or with those of any other country but his own. Cleanliness seems to be habitual to the lower class of society only in England and Holland; hence it becomes extremely difficult to procure and to preserve that constant attention to neatness, so necessary to the healthy, and seemly internal economy of a public hospital. What strikes a stranger as most objectionable, in the generality of hospitals on the Continent, is the bad ventilation of the rooms, in which a number of patients are crowded together. There are seldom any fire-places in the wards; but these are heated by means of stoves, or ovens, and animal effluvia seem not only to accumulate more in such rooms, warmed by stoves, but to ferment more easily and more quickly, than when open fires and chimnies are employed, which burn them very soon, or allow them to escape. The General Hospital at Vienna is upon a very good footing, and the domestic arrangement is well conducted. The benefits of it are not merely confined to the sick poor; persons of the middle class of society, in easy circumstances, who wish to be away from their own houses in case of illness, may be admitted into the hospital, and for this purpose, the patients are divided into four classes. The first class consists of those who have a room and a nursery entirely to themselves, they are taken care of, boarded, lodged, and attended for one florin (about 2sh. English money) per day. Patients of the second class are put several together into one room, they enjoy all the other privileges of the first class, and pay only half a florin a-day. The third class includes all the sick people, who belong to public charities or foundations, and the hospital claims the ordinary allowance which the patient used to receive, from the time of his or her admission. The fourth class is that of the poor of both sexes, who come provided with a certificate of their indigence from the minister of their parish. Servants from private families are admitted, and attended in the hospital for 10 kreutzers, (4d. English) a-day. Every patient has a separate bed, without curtains, at the head of which a wooden tablet is hung, marking the number of the bed and ward, the name of the disease, the remedies prescribed, the hours for administering them, the diet ordered, and the daily report of the symptoms. The building is two stories high, situated in an airy part of the suburbs, on a wide space of ground, including seven courts, or squares, planted with trees. There are 111 rooms, 26 feet long, 17 feet wide, and high in proportion: 61 of these wards are for men, and 40 for women, the rest are applied for other purposes, as warm and cold baths; an apothecary's shop, a chapel, and every thing useful for an establishment of such magnitude. The number of patients in this general hospital, on the last day of December, 1804, amounted to 417 men, 473 women. In the course of the year 1805, were admitted - - - - -

- - - -	men 7331	women 6847
Discharged -	— 6176	—— 5748
Died - -	— 1050	—— 1048
Remained on the books	— 522	—— 524

An asylum for lunatics is attached to the general hospital, and the building is placed adjoining to it. The shape of this place of confinement is somewhat remarkable; it is a perfectly round tower, the elevation was probably more to gratify the emperor's whim, than for any particular advantages belonging to such a structure. It is three stories high, and each story is divided into 28 rooms, of different degrees of comfort and accommodation, appropriated to each patient, according to the class in which he is placed, and the price that he pays. Four distinctions of ranks are made, the same as in the hospital. At the end of the year 1804, were 170 men, and 144 women in the lunatic asylum, in the course of 1805, were admitted - - -

- - - -	men 117	women 94
Discharged -	—— 104	—— 70
Died - -	—— 42	—— 32
Remained -	—— 141	—— 136

The proportion of males to females is as considerable, even from this report, as was observed in the history of the number of cases of mental derangement at Berlin; and the difference would here be greater, if a certain class of patients, which in most places is very numerous, were not excluded. Ecclesiastics are not admitted, because another similar institution for patients of this holy order is under the superintendence of the charitable brothers, who have another large hospital in another quarter of the town.

The 'General Hospital' is under the direction of one principal physician, and one principal surgeon, besides a number of assistant physicians, surgeons, apothecaries, and pupils, who have each a separate department allotted to them. Free admission is allowed to patients of every description, at every hour. Great regularity is observed in the management of the various concerns of so great an establishment, and the relative duties of the medical attendants, and the nurses are upon the whole scrupulously, and faithfully fulfilled. The clinical department is admirable, and merits all the commendation bestowed upon it. To the munificence of the Emperor Joseph it owes its origin, and to the judicious exertions of *Professor Frank*, must be ascribed all its usefulness, its merit, and its fame. In the middle of the great court-yard belonging to the hospital, is a handsome building, appropriated as a dwelling-house for the Clinical Professor, and the requisite accommodations for clinical lectures, and clinical practice. Two large and lofty rooms are allotted to patients, selected from the whole number of those who present themselves for admission; each chamber contains 20 beds, placed at a considerable distance from one another; the bed-steads are made of wood, no curtains are allowed, and for an upper covering, sheets and counterpanes are used instead of a feather-bed, which is usually employed in Germany. By the side of every bed, a board is hung with the name and age of the patient, the day of admission, the character of the disease, and the remedies administered written down upon it. The history of the disease, and all the circumstances of the case, are accurately taken down in Latin, on the patient's admission, by one of the candidate's for a doctor's degree, and this is read aloud at the bed-side, in presence of the Professor and the pupils, when the young man undertakes the treatment of the case, under the superintendence of the Clinical Professor, and undergoes a public examination, every day, in answering questions relative to the diagnosis, prognosis, and cure of the patient before him. The hour of visiting the patients is from eight o'clock to nine in the morning, and after every visit, the Professor delivers a short lecture in a room appointed for that purpose, stating the reports of the different cases under his care, and illustrating the practical injunctions by general remarks, deduced from his own experience, or by a reference to the best authors. Adjoining to the lecture-room is a museum, principally consisting of morbid preparations, which was bought by the Emperor Joseph, from the celebrated *Soemmering*. It contains many useful pathological histories, and its value increases every year, by the additions it receives from the occurrences in hospital practice. A collection of morbid anatomy ought to be made in every large hospital, and not merely the finely injected vascular preparations preserved, but an accurate detail of all the peculiar circumstances of the case. The Clinical Professor is appointed by the Emperor, and has a house, firing, &c. granted to him, with an allowance of 200l. sterling per annum. His assistants reside at the hospital as well as himself, and they, and the other medical attendants, receive a salary from the government. Besides the clinical establishment for the practice of medicine, there are two others attached to the hospital, one called the medico-chirurgical clinic, and the other, the chirurgical clinic. Six wards are appropriated for this more general clinical practice. In the regular establishment already described, the pupils who attend, are preparing to graduate, and the examinations and lectures are in the Latin language; in these others, the examinations and reports are delivered in the German language, and they are attended by those who practise as surgeons and apothecaries. The manner of proceeding in the Surgical Clinical ward is much the same, for those students who are to take a surgeon's displōma; but the lower class of students only frequent the wards where medical and surgical cases are mingled together, where they can have an opportunity for acquiring some knowledge of the other infirmities of the human body, besides that of having a beard, which it is their daily occupation to remove. The inferior class of surgeons at Vienna still shave, and draw teeth, and bleed; but there are some men of eminence who are attached to the hospital, and have very good private practice in the town, both as regular physicians and surgeons. *John Peter Frank* was invited from Pavia, to take the charge of the Clinical School, and he exerted himself very successfully in making an useful arrangement, and attracting a vast concourse of students from different parts of the Austrian empire. He was considered as the father and the founder of that systematic mode of teaching the elements of practical medicine, and was very highly esteemed by all his pupils, and much admired by the wisest and best of his contemporaries; but by the chicanery, and low tricks, and intrigues, of courtiers and court-physicians, he found himself placed in a situation too despicable for an independent and high-minded man to endure, with any sort of patience. His plans were thwarted, and his requests rejected by his own sovereign, when the present Emperor of Russia made him very advantageous offers, and flattering proposals, to go and settle at Petersburgh. Thus *Frank* resigned the Clinical Professor's chair; he left his country and his friends to seek that fame and fortune, which, in an happier age, he might have found in the favourite spot of his reputation, in the school of Vienna. After his departure, Dr *Joseph Frank*, his son, became his successor at the hospital; but he soon followed his father, and is now at the University of Wilna. Several intelligent men, who had long been the favourite assistants and pupils of *Frank*, quitted their situation at the hospital with disgust at the banishment of their master; and the celebrity of the Clinical wards is now talked of, as one of those things which *has been*. The name of the present Professor is *Bridel*, he has a friend at court, to whom he is indebted for the appointment; and it is said, he is, in every other respect, directly the reverse of his distinguished predecessor. *Professor Harn* conducts the surgical clinical department, and *Professor Rheinlein* the medico-surgical, both these men are highly spoken of, and they are followed by many pupils.

Before leaving the description of the General Hospital, it would be wrong to pass over without notice, the Lying-in, and the Foundling Hospital, which make a part of the establishment. Any female may gain admission to the lying-in wards at any time, and remain unknown, and after her delivery she can leave her child to the care of the hospital for foundlings, or take it away with her. Although any woman may be admitted under an assumed name, she must deliver her real name in a sealed packet, which is returned to her unopened, on her leaving the hospital, but is opened in case of death. Accommodations are provided for three classes of patients, who pay a small sum of money in proportion to their means, or they are received *gratis*; and if the child be left behind, the parent must pay 24 florins, (about 28 shillings) in order to get it put into the Foundling-Hospital. Pupils of both sexes attending the hospital are allowed to frequent some of the lying-in wards, but others are kept quite secret. On the last day of December, 1804, according to the report published last year, there were 107 women, and 21 children in the Lying-in Hospital; in the course of the year 1805, the number of women admitted, amounted to 2112; discharged, 2084; died, 9; remained, 126 women, and 26 children. This statement only refers to the wards for the delivery of pregnant women, an annual report of the Foundling Hospital is not published. If accurate details were yearly published of every Foundling Hospital in Europe, it is likely, a very melancholy picture of mortality would be unfolded. The policy and expediency of such places is very questionable. Experience has shewn, that the number of objects multiply, in proportion to the provision made for them, and such receiving-houses as this at Vienna, without the risk of any discovery, must operate as a sort of bounty on vice and seduction, and the exposure of infants. Take away all sense of shame, remove the fears of any deviation from the paths of virtue and chastity, being detected, and you take away the grand barrier, that serves to counterpoise the suggestions of sensual passion, and thus encourage, instead of alleviating, the evils incident to the female sex, in a crowded, and consequently corrupt metropolis.

Account of the Diseases treated at the PUBLIC DISPENSARY, Bishop's Court, near Carey-street, from May 31st to August 31st, 1806.

ACUTE DISEASES.

	No. of Cases.		No. of Cases.
Hydrocephalus acutus	2	Febris infantum	4
Phrenitis	1	Ophthalmia	3
Typhus	1	Cynanche tonsillaris	5
Synochus	13	———— parotidæa	1
Quartana	1	Pneumonia	4

ACUTE DISEASES, *continued.*

	No. of Cases.		No. of Cases.
Peripneumonia notha	7	Dysenteria	12
Hæmoptysis	8	Enteritis	1
Catarrhus	57	Nephritis	1
Tussis post rubeolam	2	Hysteritis	1
Erysipelas	5	Ischuria renalis	1
Variola	2	Pertussis	5
Rubeola	3	Dentitio	4
Scarlatina	7	Apoplexia	1
Urticaria	2	Rheumatismus acutus	13
Hespes zoster	1	Arthritis rheumatica	6
Cholera	4	Hectica adolescentium	2

CHRONIC DISEASES.

Cephalæa	14	Chlorosis et amenorrhœa	13
Tussis chronicus	17	Dysmenorrhœa	2
Gastrodynia	14	Menorrhagia	17
Dyspepsia	13	Leucorrhœa	8
Hepatitis chron.	2	Prolapsus uteri	1
Enterodynia	10	Cancer uteri	3
Diarrhœa	13	Aphthœ	2
Constipatio	1	Ascites	5
Verminatio	2	Anasarca	2
Tænia	1	Hydrothorax	2
Tabes mesenterica et marasmus	7	Scrofula	4
Tympanites	2	Paralysis	3
Hæmorrhois	1	——— saturnina	1
Nephralgia	12	Asthenia	45
Hæmaturia	2	Aneurysma aortæ	1
Catarrhus vesicæ	1	Varicæ cruris	1
Dysuria	3	Plethora	2
Phthisis	13	Lichen	1
Asthma	4	Prurigo	5
Pleurodyne	3	Psoriasis	4
Rheumatismus chronicus	34	Pityriasis	1
Lumbago et sciatica	7	Impetigo	13
Epilepsia	5	Porrigo	3
Hysteria	2	Scabies	8
Chorea	1	Ecthyma	2

The temperature of the air has been moderate during the last six or eight weeks; there have been several heavy rains, and three or four unusually severe thunder storms. Hence, probably, we may account for the small number of disorders of the biliary system and alimentary canal, and for the multitude of catarrhal and rheumatic affections. The month of June was almost uniformly warm and dry; on the 10th and 14th the thermometer in the shade arose to 82½°.

The Synochus, or summer fever, seems to be on the increase in this district: it occurs in a mild form, is accompanied with more or less abdominal pain and tension, and is relieved considerably by purgatives. The single case of Typhus succeeded to, and appeared to be, the effect of an over-dose of a hot terebinthinate medicine, which is sold under the name of "Dutch drops." The man had swallowed fifteen times the quantity prescribed, and was seized soon after with head-ach, delirium, and fever, which assumed the form, and went through the common course, of pure typhus.

For the Gastrodynia, which is extremely prevalent among the poor at all seasons, the oxide of bismuth, which was recommended by Dr Odier of Geneva, has been employed both by my colleague, Dr Laird, and myself, with considerable success. It has, in some cases, produced a permanent relief, after the usual tonics and stimulants had been taken with a trifling, and but temporary, advantage. In a dose of about ten grains it sits easy on the stomach, and seems to be generally efficacious. For a minute account of the medicine, and the proper mode of preparing it, the reader may refer to an excellent paper on the subject, in the 6th Vol. of the Memoirs of the Medical Society of London, by Dr Marcet.

Two of the cases of jaundice, in the report of last quarter, were those of middle-aged women, who have before applied to the Dispensary, for the cure of the same complaint. The disease appeared to arise, in both, from the presence of gall-stones, or inspissated bile, in the biliary ducts, as it was accompanied with frequent attacks of acute pain in that region. It was relieved, for a time, by opium, and calomel as a purgative; but in both, the most marked and essential benefit was derived from the use of the nitric acid. In one of the instances, the jaundice was speedily removed three or four successive times by this medicine, having returned when it was omitted for a short time: and, in the other, not only the jaundice, but slight and frequent pains in the region of the liver, were invariably removed by recurring to its use. I have employed this remedy in a few other cases with similar advantage, as well as in some instances of chronic pains referred to the region of the liver; in some of which, perhaps, it may have acted merely as a tonic to the stomach. The hypothesis of oxygenation, with which the practice was coupled, when it was transmitted from the East Indies, has probably contributed to throw discredit on a medicine, which, in some modifications of disease in the biliary organs, possesses, beyond a doubt, considerable remedial powers.

J. BATEMAN.

LONDON, Aug. 31st,
1806.

Extract of a Letter from Dr JOSEPH FRANK, *Professor of Pathology in the University of Wilna, dated* 19*th May*, 1805.

YOUR letter was sent after me from Vienna, which city we left last September in consequence of an invitation from the court of St Petersburgh. Both my father and myself are appointed to this university, my father as Clinical Professor, myself as Professor of Pathology. Our incomes are considerable; so we have not suffered by the change; and have, besides, the pleasure of contributing to the diffusion of science under the enlightened government of the Emperor Alexander. Wilna lies in that part of Polish Lithuania which, at the last partition of that country, was allotted to Russia. The university has an yearly income of L.20,000 sterling, and the Emperor is about to increase it. I am already appointed my father's successor; in the mean time, I teach pathology not merely theoretically, but I demonstrate the diseases at the bed-side of the sick. For this purpose I make use of one of our hospitals, which I am now endeavouring to put upon the footing of the English hospitals, for I have also got the superintendence of all the hospitals in this place. Among my colleagues I have an old schoolfellow whom you perhaps know. He graduated in Pavia, and was some time in Edinburgh. His name is Sniadecki. At present he teaches chemistry and pharmacy.

Although we are entirely separated from Germany, we still know what is going on there with regard to medicine. The Brunonian System is daily more and more modified, so that it is scarcely to be recognised. You will be astonished to hear that I have deserted it. "What system," you will ask, "have you "then adopted?" None. I consult my own experience, and benefit by all correct observers, whether they belong to the new or to the old school. It is only since I have adopted this method, that I feel as if I were a physician. Perhaps I should have been longer of arriving at this point if I had not travelled through Britain; at least I can say, that it was from reflecting upon what I saw there, that this new light burst upon me. My present mode of thinking is much censured by the young physicians, who find a system so convenient, but is approved of by all real practitioners, and it is only the approbation of the latter that can and ought to weigh with me. In justice to myself, I must, however, remark, that I never was a blind follower of Brown; and that, after more mature consideration and greater experience, I am convinced his principles cannot be adopted as the foundation of the science of medicine.—My father will soon publish the sixth volume of his *Epitome de curandis hominum morbis*. It treats of hemorrhagies.

Extract of a Letter from a Gentleman connected with the University of Wilna, dated Hamburgh, 4th August, 1805.

I BEG your pardon for not having sent you an answer to your letter from London, I was so much occupied there with my departure. During my stay in Hamburgh, I received some communications from our University, which enables me to do it with still more information than I could have done in London; I am therefore very glad that I can fulfill at least part of my promises.

You will find here inclosed two papers, the one is the *Act of Confirmation of the University of Wilna*, the other is an *Extract of some Articles from the Statutes of the University*, relating to the method of election, for vacant places in the University, both translated into French, in order to be communicated to foreign countries.

These papers might have been known in your country 18 months ago, if the gentlemen in England, to whom they were sent by the University, had taken the trouble to insert them in any public Journal, which would have prevented a misunderstanding between some of your learned countrymen and the University, which was intimated to me several times during my stay in Edinburgh.

By the letters which I received from the University, I am enabled to give an explanation of this misunderstanding, partly by sending you the printed papers here inclosed, partly by communicating to you what has been noticed to me by the University: and you will find, that if the method of competition and election to vacant places in the University, prescribed by the laws and statutes, had been known to those gentlemen who had been proposed to the University, there could have been no mistake made. Amongst all these learned gentlemen, only one has sent a paper in the English language, on the subject which he professed; and this paper is now under consideration. One paper more has been received from another gentleman, which contains nothing but heads of lectures; and this you will easily perceive, by the § 22 of the "*Extrait du Chapitre,*" does not answer the conditions prescribed by the Statutes of the University. There were a good many more of your learned countrymen proposed, whom the University would have been very happy to have employed; but except these two papers which I mentioned, the University has not received one single line from any British gentleman, as I am authentically informed, up to the 10th May, 1805; therefore, there could be neither consideration nor election.

There are still six places vacant in the University, viz. Natural History, Rural Economy, Moral Philosophy, Political Economy, Universal History, and L'art Veterinaire. These places the University has pointed out to me as vacant, in a letter of the 10th May 1805: sending me at the same time, the two papers here inclosed, in order to be communicated in your country. I know I can send these communications to no better hands than yours, and I am persuaded you will be so kind as to give them a publicity, which will repair the misunderstanding, and keep up the honour of our University, so that I hope we still may have some of your learned countrymen amongst us, which I most heartily wish.

By the unlucky fire at the Central House of the Royal Jennerian Institution in London, the most important of the inclosures mentioned in the preceding letter was destroyed. The letter however, fortunately, renders the loss less important, and at least is sufficient to prevent a repetition of the disagreeable and awkward occurrences which took place here, and perhaps in some other parts of Britain, a year or two ago. Some gentleman misunderstanding the nature of the communications made to them, on the part of the univerſity of Wilna, conceived themselves empowered to dispose of certain professorships then vacant, instead of merely making known the vacancies and the conditions which candidates were required to fulfil. In consequence of their representations, several young gentlemen of promising talents were induced to accept of their offers, and, after putting themselves to very great and serious inconvenience, and being kept in the most awkward suspense until their patience was worn out, found, that their appointments were perfectly unauthorized. The following extracts from the *Act of Confirmation of the Imperial University of Wilna* will give some idea of the encouragement held out to strangers, and of the mode of supplying vacancies:

§ 5.

§ 5. The election of all places and functions in the univerſity, even to the Theological Chairs, ſhall be veſted in the plurality of votes, collected in a general meeting of the univerſity, and preſented by its Curator, for the confirmation of the Miniſter.

§ 15. Foreigners appointed to the univerſity, may quit the country without paying any tax on the exportation of their effects. On their firſt arrival in Ruſſia, they may bring for their own uſe, effects to the value of 3000 rubles, without paying duty.

§ 22. The annual appointments of each Profeſſor ſhall conſiſt in 1000 rubles in ſilver, for a principal courſe, and in 500 rubles for a ſupplementary courſe.

There are also pensions allotted to the widows and orphants of the professors, and to such professors as from ill health, are rendered unable to fulfil the duties of their chair; besides, after 25 years service, the professors may retire on full pay.

Extract of a Letter from Mr Elder, *Missionary: dated Otaheite, July 24th*, 1805.

We have of late seen two instances of locked jaw, and one of apoplexy; and there is reason to think that these diseases are frequent on the island. We use the cold bath, and large doses of opium for the locked jaw, as directed in Cullen's first lines, and bleeding, &c. in the apoplexy. The natives have got amongst them a dangerous swelling which rises to a great size, but neither comes to any head, nor contains any matter; it is found in the arms, legs, and thighs. They have got an out-striking, which breaks out on the side, and often spreads round the whole body; it has got a white crust, is loathsome to look at, and does not discharge any matter. It is sometimes fatal, and appears to be infectious. I do not think any of these two diseases are described in medical books. I sometimes give those labouring under them cooling things internally, but do not know what external application to make. The venereal is common among them, but whatever is the cause, it appears on this island to be a mild disease. *The first three years I was here, I never saw a chancre or bubo, nor gave to any native mercury, and yet they all got better.* Within these last four months, I have seen three men who had both bubo and chancre, all of them got mercury, one has been cured, and the others are not cured.

Besides the swelling which I have mentioned, they have got another swelling, which attacks their legs and arms, sometimes one leg and not the other, and sometimes one arm and not the other; it rises to a great size, seems to contain water, is not attended with pain, never proves fatal, and is much laughed at by the natives. I observed this kind of swelling at Rio Janeiro. There are a great many diseases on this island, but the most common and most fatal is what is called by the natives Hotete. It attacks all ages (perhaps), but particularly the young. It begins like an intermitting fever, the cold fits are not regular, sometimes returning on the third, and sometimes on the tenth day; after two or three months it changes its type, and is more like a continued fever, or perhaps like a hectic. It is very difficult to learn from the natives how it attacks them, and I cannot say positively what are its symptoms. In the beginning I have given some of them emetics, and I think with some success. I have given to some the bark, (some have taken it in very large doses), but I do not know that it ever was attended with any good effects, owing, most likely, to the method of giving it, or to inattention to regimen, &c. in those who did get it. Dr Bass, who was here, (commanding the brig Venus), and who is a very eminent physician, told me, that those dying of the Hotete, are dying of consumption, or, in other words, of scrophula; and I think, with him, (so far as I can judge), that scrophula is the cause of the Hotete. It is certain, that after a person has laboured for several months under the Hotete, it is not uncommon for the back to break, and when the back breaks, they generally get better, although not always

Extract of a Letter from a Surgeon on the Madrass Establishment, dated 22d October 1805.

My last letter from —— gave me sad accounts of his health. He is suffering much from excessive use of mercury; and has had, he says, spasms of the diaphragm, and excruciating pains in his skin, bones, and head. It may be news to you, that mercury, in this country, when given in too large quantity, causes sufferings more dreadful than the disease for which it is the specific, and experienced surgeons are cautious never to exceed in its employment. You ask me if the erythema mercuriale is frequent with us? Very lately a brother surgeon here had a case of it in his hospital which terminated fatally; and with the natives, who never can be made to clothe themselves sufficiently, or almost at all, when under the use and influence of mercury, this disease occurs frequently, and often proves destructive.

In reply to your query, if any cases of small-pox have occurred here after vaccination, I am sorry to say that some have, in the hands of Europeans, and very many in those of natives, as might be expected from the manner adopted to propagate the cow pock. The latter, at least, became so loose in their practice, that very many of them did not look near their subject from the day of using the lancet, so that it would be more proper to say, Small Pox occurred after *Inoculation*, than after *Vaccination*. The allowance of L.4 per 100 patients tempted them to great impositions; and there was no adequate check on them, either as to practice or discovering falsity in their accounts, so that when you see the accounts of hundreds of thousands vaccinated, you must not give credit to more than a half.

New regulations have been introduced lately to improve and reform the conduct of cow-pock inoculators, not much, however, to the benefit of the practitioners in it.

Original Vaccine Pock Institution. Broad Street, Golden Square,
Weekly Board, 15th *July* 1806.

The following Propositions were read, and unanimously agreeed to be published:—

I. That it does appear, on adequate evidence, that persons who have gone through the Cow Pock, in the manner commonly believed to give security, have, in the proportion of one in a thousand, subsequently taken the Small Pox, according to the experience of this Institution, up to the present time.

II. That disorders which can be at all reasonably imputed to inoculation, have been observed less frequently after the vaccine than after the variolous inoculation.

III. That considering the slightness of the Cow Pock, and that no fatal case has occurred in the practice of this Institution, vaccination is greatly preferable to variolation; and especially on account of its not being propagated in any way but by inoculation, it is infinitely more valuable to the public.

IV. That it be recommended to every one who has been, or shall be vaccinated, to be re-inoculated with variolous, or vaccine matter.

V. That according to the experience of this Institution, the test of the insertion of vaccine matter (which is perfectly harmless) is to be relied upon equally with that of the variolous.

VI. That there are good reasons for imputing the late mortality by the Small Pox to its having been highly epidemical last year, as well as to the influence by which some writers, opposers of the Cow Pock, were enabled to prevail upon a great number of persons to be inoculated for the Small Pox; thus multiplying the sources of variolous infection.

Note.—It has been urged, that vaccination may only destroy the susceptibility of the Small Pox for a *limited* time; and hence that the second inoculation only affords a proof of the time for which that unsusceptibility subsists. This may be justly redargued.

1st, The failures afford only equivocal evidence of the alleged temporary unsusceptibility.

2d, Such a temporary state is against analogy.

3d, There is no inconsiderable positive evidence of permanent unsusceptibility.

On the 12th of September, the Senatus Academicus of the University of Edinburgh, conferred the degree of Doctor in Medicine, on the following Gentlemen, after having gone through the appointed examinations, and publicly defended their respective inaugural dissertations.

FROM ENGLAND.

William Bealey,	*De Epilepsia.*
Richard Byam Dennison	*De Morbis e Graviditate pendentibus.*
John Eyre	*De Vaccina.*
Jonathan Rogers Stokes	*De Erysipelate.*

FROM GENEVA.

Peter Marignac,	*De Urethra constricta.*

FROM IRELAND.

Jeremiah Curtayne,	*De Noxiis alcoholis effectibus.*
Thomas Doxey,	*De Phthisi pulmonali.*
Henry Edgeworth,	*De Exercitatione.*
Patrick Fleming,	*De Apoplexia.*
Timothy Kerin,	*De Peritonitide Puerperarum*;
Samuel L'Estrange, A.B. T.C.D.	*De Epilepsia.*
James Ogilby,	*De Nutrimento Plantarum.*

FROM SCOTLAND.

Robert Briggs, A.M.	*De Antimonio.*
Archibald Campbell,	*De Cerebri compressione.*
Alexander Gardner,	*De Scarlatina Cynanchica.*
Robert Maclean,	*De Cynanche maligna.*

FROM VIRGINIA.

John Wharton	*De Mania.*

FROM WALES.

William Mason,	*De Typho.*

University of Edinburgh.

The classes for the different branches of Medicine will be opened for the ensuing session as follows:

CLASSES.	DAY AND HOURS.		PROFESSORS.
Anatomy and Surgery, -	Wednesday, *Oct.* 29th.	1	Drs Monro
Chemistry and Chemical Pharmacy,		10	Dr Hope
Dietetics, Materia Medica, and Pharmacy, -		8	Dr Jas Home
Theory of Physic, - -		11	Dr Duncan
Practice of Physic -		9	Dr Gregory
Theory and Practice of Midwifery, - -		3	Dr Jas Hamilton
Natural History, -	- - -	-	Mr Jamieson

Two courses of Practical Anatomy will be given, under the superintendance of Dr Monro, jun. and Mr Fyfe; the one to begin on the 1st November, and the other on the 1st February.

Clinical Lectures on the cases of patients in the Royal Infirmary, by Dr Duncan and Dr Rutherford, upon Tuesday and Friday,—the first lecture by Dr Duncan on Tuesday, Nov. 4. at 5 p. m.

Clinical Surgery by Mr Russell, the first lecture on Monday, Nov. 3. at 5 p. m.

Dr Rutherford will begin a course of Botany in May 1807.

University of Glasgow.

The Medical Lectures in the University of Glasgow will begin on Tuesday the 4th November, at the following hours:

Dietetics, Materia Medica, and Pharmacy, by Dr Millar, at 10 o'clock forenoon;
Midwifery, by Mr Towers, at 11;
Theory and Practice of Physic, by Dr Freer, at 12;
Anatomy and Surgery, by Dr Jeffray, at two o'clock afternoon;
Chemistry and Chemical Pharmacy, by Dr Cleghorn, at seven;
Clinical Lectures on the cases of patients in the Royal Infirmary, by Dr Cleghorn and Dr Freer. The first lecture by Dr Cleghorn, on Tuesday evening the 11th November, at six o'clock
Dr Brown will begin his Lectures on Botany, about the beginning of May next.

London

The autumnal course of Lectures at St Thomas's and Guy's Hospitals, will commence in the following order:—

St Thomas's Hospital.—Anatomy, and operations of surgery, by Mr Cline and Mr Cooper, Wednesday, October 1, at half past one.—Principles and practice of surgery, by Mr Cooper, on Monday October 6, at eight in the evening.

Guy's Hospital.—Practice of medicine, by Dr Babington and Dr Curry, on Wednesday October 1, at ten in the morning.—Principles and Practice of Chemistry, by Dr Babington and Mr Allen, on Thursday, October 2, at ten in the morning.—Theory of Medicine, comprehending Pathology, Therapeutics, and *Materia Medica*, by Dr Curry, on Friday October 3, at eight in the evening.—Physiology, or Laws of the Animal Economy, by Dr Haighton, on Monday October 6, at a quarter before seven in the evening.—Midwifery, and Diseases of Women and Children, by Dr Haighton, on Monday October 6, at eight in the morning.—Clinical Lectures on Select Medical Cases, by Dr Babington, Dr Curry, and Dr Marcet, from November till May.—Besides these, during the winter a course of Lectures on the Structure and Diseases of the Teeth, will be given by Mr Fox, Surgeon-Dentist; and one on Veterinary Medicine, by Mr Coleman, Professor at the Veterinary College. These several lectures are so arranged, that none of them interfere with the others in the hours of attendance; and the whole is calculated to form a complete course of medical and chirurgical instruction. Terms and other particulars to be learnt from Mr Stocker, apothecary to Guy's Hospital, who is also empowered to enter gentlemen to such of the Lectures as are given at Guy's.

Medical Theatre, St Bartholomew's Hospital.—The following Courses of Lectures will be delivered at this Theatre during the ensuing winter.—On the Theory and Practice of Medicine, by Dr Roberts and Dr Powell.—On Anatomy and Physiology, by Mr Abernethy.—On the Theory and Practice of Surgery, by Mr Abernethy.—On Comparative Anatomy, and the Laws of Organic Existence, by Mr Macartney.—On Chemistry, by Dr Edwards.—On Midwifery and the Diseases of Women and Children, by Dr Thynne.—The Anatomical Lectures will begin on Wednesday, October 1, at two o'clock, and the other Lectures in the course of the same week.—Further particulars may be known by applying to Mr Nicholson, at the Apothecary's shop, St Bartholomew's Hospital.

London Hospital.—The autumnal courses of Lectures delivered at this Hospital will commence on the 1st of October.—Theory and Practice of Physic, by Dr Cooke.—Chemistry by Dr Hamilton, and Dr Yelloly.—*Materia Medica*, by Dr Frampton.—Theory and Practice of Midwifery, by Dr Dennison.—Clinical Observations on Surgical Cases, by Sir William Blizard, and Mr Thomas Blizard.—Anatomy, Physiology, and the Operations of Surgery, by Mr Headington and Mr Frampton.—Anatomical Demonstrations and Dissection, by Mr Armiger.—Principles of Surgery, by Mr Headington.—Further particulars may be known by applying to Mr PRICE, apothecary, at the Hospital.

ST GEORGE'S HOSPITAL, *and Great George Street, Hanover Square.*—In the firſt week of October will commence a course of Lectures on the Practice of Phyſic, Therapeutics, and Chemistry, in the Lecture Room, No 9, Great George-street, Hanover-square (removed from Leicester-square), at the usual morning hours, viz. the medical lectures at eight, and the chemical at a quarter after nine o'clock; by GEORGE PEARSON, M.D. F.R.S. senior physician of St George's Hospital, of the College of Physicians, &c. A register is kept of Dr Pearson's Cases in St George's Hospital, and an account is given of them every Saturday morning, at a Clinical Lecture, at nine o'clock.

Mr HOME's Lectures on the principal Operations in Surgery, given gratuitously to the pupils of St George's Hospital, will commence in October next, as usual.

Mr GUNNING will likewise give Lectures on the Lues Venerea, &c.

Mr GUNNING, Surgeon Extraordinary to his Royal Highness the Duke of Sussex, and Surgeon to St George's Hospital, will commence his Course of Lectures on the Principles and Operations of Surgery at his house, 43, Conduit-street, on Monday, October 13, at seven o'clock in the evening.—Further particulars may be known by applying to Mr Gunning, at his house, 43, Conduit-street, Hanover Square.

THEATRE OF ANATOMY, GREAT WINDMILL STREET.—Mr WILSON will begin the Winter Course of his Lectures on Anatomy, Physiology, Pathology, and Surgery, on Wednesday, October 1, at two o'clock as usual. A room will likewise be opened for Dissections, from nine o'clock in the morning, until two in the afternoon, where regular and full Demonstrations of the parts dissected will be given, where the different Cases in Surgery will be explained, the Methods of Operating shewn on the Dead Body, and where also the various Arts of Injecting and Making Preparations will be taught.—The plan and terms of the Course may be had in Great Windmill-street.

Dr CLARKE and Mr CLARKE will begin their winter course of Lectures on Midwifery, and the diseases of Women and Children, on Monday the 6th of October. The lectures are read every day (Sundays excepted), at the Lecture-room, No 10, Upper John street, Golden-square, from a quarter past 10 o'clock in the morning, till a quarter past eleven, for the convenience of students attending the hospitals. For farther particulars apply to Dr Clarke, New Burlington-ſtreet, or Mr Clarke, Upper John-ſtreet, Golden-square.

Mr CARPUE will commence his Anatomical Lectures, on Wednesday, October 1, 1806.—The structure of the human body will be explained, as also its physiology. The operations of surgery will be shewn on the dead body.—The Dissection-room will be open from seven o'clock in the morning, till five in the evening. The pupils are here taught the method of operating, as also the art of injecting and making preparations.

Mr BROOKES will commence his Autumnal Course of Lectures on Anatomy, Physiology, and Surgery, on Wednesday the 1st of October, at two o'clock, at his Theatre, Blenheim Street, Great Marlborough

Street. The Dissecting Rooms will be open from eight o'clock in the morning till two, where Mr Brookes attends.

Dr Bradley will commence his Autumnal Course of Lectures on the Theory and Practice of Medicine, on Monday the 13th of October next, at Whitehall.

Mr A. Carlisle, F.R.S. F.L.S. and Surgeon to the Westminster Hospital, intends to deliver a Course of Lectures on the Art and Practice of Surgery, in all its branches, during the present season, at his house in Soho-square.

Dr Reid's Winter Course of Lectures on the Theory and Practice of Medicine, will commence on the 20th of October next, at his house, No. 6. Grenville Street, Brunswick Square, where particulars may be had.

Mr Thomas's Autumnal Course of Lectures, on the Theory and Principles of Surgery, will commence, as usual, early in October. Particulars may be known at his house, Leicester Place, or at the Anatomical Theatre, Windmill-street.

Mr Moor, Surgeon Dentist to her Royal Highness the Duchess of York, will commence a Course of Lectures on the Structure and Diseases of the Teeth, some time in November, in which will be explained the complete practice of the Dentist.

Dr Badham's Lectures on Medicine and Chemistry will be commenced on Friday, October 10, at eight o'clock.—15, *Clifford Street, Burlington Gardens.*

Extract of a Letter from Paris.

M. Faujas has just returned from a journey in the Venetian States. He has brought a great collection of Fossil Shells and Bones. He saw the entire skeletons of a rhinoceros and elephant, found on the banks of the Po.

PART IV.

LIST OF NEW BOOKS.

PHILOSOPHICAL Transactions of the Royal Society of London, for 1806. Part I. 4to.

Transactions of the Royal Society of Edinburgh. Vol. VI. Part I. 4to. 9s.

The Transactions of the Royal Irish Academy. Vol. X. 4to. 1l.

Memoirs of the Literary and Philosophical Society of Manchester. Vol. I. of the 2d Series. 8vo. 7s.

Memoirs of the Medical Society of London. Vol. VI. 8vo. 12s. boards.

The New London Medical Dictionary. Part I. 4to. 1l. 4s.

An Address to the Proprietors and Managers of Coal Mines, particularly of those in the neighbourhood of Newcastle upon Tyne, respecting the means of destroying the Fire Damp; in reply to a Proposal, lately circulated by Dr Trotter. 8vo. 2s.

Manual of Health, or the Invalid safely conducted through the Seasons; to be continued occasionally. 12mo. 5s.

The Domestic Guide in cases of Insanity. 12mo. 2s.

A Letter to Mr Birch, in Answer to his late Pamphlet against Vaccination. By a Member of the Royal College of Surgeons. 8vo. 2s. 6d.

The Medical Observer; containing an impartial account of Advertised Nostrums, &c. 2s. 6d.

Surgical Observations on Health. By Mr Abernethy. Part II. 6s. 8vo. boards.

Letters to D. Rowley on his late Pamphlet, entitled, "Cow Pox Inoculation, no security against Small Pox Infection." By Aculeus.

A Recapitulation of several circumstances and arguments contained in the Author's "Outlines," and "Medical Researches," relating to the impropriety of considering Fever as arising from contagion. By Thomas Alder. Part I. 4to. 5s.

A Concise Statement of the most important of the difficulties and imperfections in Medicine; of the causes of them, and of the remedies for them. By T. Alder. 4to. 2s. 6d.

Essays on the Anatomy of Expression in Painting. By Charles Bell, 4to. 2l. 2s.

The Principles of Surgery. Vol. II. in two parts. By John Bell. 4to. 5l. 5s.

A Meteorological Journal of 1805. By. W. Bent. 8vo. 1s. 6d.

Letters on Natural History. By John Bigland. 12mo. 9s. boards.

The Vaccine Contest. By William Blair, 2s 6d.

A Compendium of the Anatomy, Physiology, and Pathology of the Horse. By B. W. Burke. 12s. 6d. boards.

Observations on Abortion; containing an Account of the manner in which it is accomplished, the causes which produce it, and the method of preventing or treating it. By John Burns, 4s. 6d. 8vo. boards.

An Essay on the Effect of Carbonate of Iron upon Cancer. By Richard Carmichael. 8vo. 4s. boards.

Practical Essays on the Management of Pregnancy and Labours, and on the Inflammatory and Febrile Diseases of Lying-in-women. By John Clarke, M. D. 2 Edit. 8vo. 4s. 6d.

The Modern Practice of Physic. By Edward Goodman Clarke, M.D. 8vo. 9s. boards.

Critical Reflections on several important Practical Points relative to the Cataract; comprehending an Account of a New and Successful Method of Couching a particular species of that Disease. By Samuel Cooper. 8vo. 4s.

A Synoptical Table of Diseases. By Alexander Crichton, M. D. Large sheet, 2s. 6d.

A Letter to Thomas Trotter, M. D. occasioned by his proposal for destroying the Fire and Choak Damps of Coal Mines; containing Chemical and General Strictures on that Work. By Henry Dewar, M.D. 8vo. 1s. 6d.

The Edinburgh New Dispensary, 3d edition. By A. Duncan, jun. M. D. 8vo. 10s. 6d.

A Dissertation on Ischias, or the disease of the Hip-joint, commonly called a Hip case; and on the use of the Bath Waters, as a remedy in this complaint. By William Falconer, M. D. F. R. S. 2s. 6d.

A Sketch of the professional Life and Character of John Clark, M. D. By J. R. Fenwick M. D. 8vo. 2s.

The History and Treatment of the Diseases of the Teeth, the Gums, and Alveolar Processes, with the Operations which they respectively require. To which are added, Observations on other Diseases of the mouth, and on the mode of fixing Artificial Teeth; illustrated with copper plates. By Joseph Fox. 4to. 1l. 1s.

A Treatise on Epilepsy, and the use of the Viscus Quercinus, or Misletoe of the Oak, in the cure of that disease. By H. Frazer, M. D. &c. 2s. 6d. 8vo. sewed.

Observations on Vaccine Inoculation, tending to confute the opinion of Dr Rowley and others. By Henry Frazer, M. D. 2s.

Observations and Experiments on the Humulus Lupulus *Linn.*, with an Account of its use in Gout and other Disseaes, with Cases. By A. Freake. 8vo, 2s.

A System of the Anatomy of the Human Body; illustrated by upwards of 200 tables, containing near 1000 figures, copied from the most celebrated Authors, and from nature. By Andrew Fyfe. 3 vols. 4to. 7l. 7s. half bound.

The Efficacy of Inoculated Small Pox, in promoting the Population of Great Britain. By R. Gillum, M. D. 6d.

Arguments relative to Cow Pock, inscribed to Lord Hawkesbury, and laid before the Board of Health. By R. Gillum, M. D. 6d.

The Metaphysic of Man; on the Pure Part of the Physiology of Man. Translated from the German of T. C. Goldbeck. By S. F. Waddington, M. D. 8vo. 5s.

Remarks on the Ineffective State of the Practice of Physic in Great Britain. By Edward Harrison, M. D. F. R. A. S. S. 1s. 6d.

Observations on the Utility and Administration of Purgative Medicines. By James Hamilton, M. D. 2d edition. 8vo. 7s. 6d.

An Epitome of Infantile Diseases, with their Causes, Symptoms, and Method of Cure. Published in Latin, by William Heberden, M. D Translated into English, by J. Smith, M. D. 3s.

Epitome of Chemistry. By W. Henry. New edition, 8vo. 12s.

Cow Pock Inoculation, vindicated and recommended from matters of fact. By Rowland Hill, A. M. 12mo. 1s.

Practical Observations on the Natural History and Cure of the Venereal Disease. By J. Howard. 2 vols. 18s.

Essays, chiefly on Chemical Subjects. By the late William Irvine, M. D. F. R. S. and his son William Irvine, M. D. 8vo. 9s.

A Treatise on the External Characters of Minerals. By Robert Jamieson, F. R. S. Edin. 8vo. 4s.

A System of Arrangement and Discipline for the Medical Departments of Armies. By Robert Jackson, M. D. 8vo. boards.

Observations on the Epidemick Disease, which lately prevailed at Gibraltar; intended to illustrate the nature of contagious fevers in general. By Henry Seguin Jackson, M. D. 8vo. 4s.

Cases of the Excision of Carious Joints. By H. Park, and P. F. Moreau, M. D. With Observations by James Jeffray, M. D. with engravings. 8vo. Glasgow 4s. 6d.

The Report, and the Evidence, at large, as laid before the Committee of the House of Commons, respecting Dr Jenner's discovery of the Vaccine Inoculation. By the Rev G. C. Jenner. 8vo. 6s. boards.

A Reply to Dr J. Carmichael Smith, containing Remarks on his Letter to Mr Wilberforce: And a further account of the discovery of the power of Mineral Acids, in a state of Gas, to destroy Contagion. By John Johnstone, M. D. 8vo. 5s.

Vaccination vindicated against Misrepresentation and Calumny, in a Letter to his patients. By E. Jones. 8vc. 1s

A New System of Family Medicine. By W. Keighly, M. D. 8vo. 6s.

An Address to the Medical Practitioners of Ireland, on the subject of Cow Pock. By Samuel Labatt, M. D. 8vo. 3s. 6d. sewed.

Inoculation for the Small Pox Vindicated, and its superior Efficacy and Safety to the practice of Vaccination clearly proved. By George Lipscomb, Surgeon. 2s.

A Manual of Inoculation for the Use of the Faculty and Private Families. By George Lipscomb, Surgeon. 8vo. 2s.

A Dissertation on the Failures and Mischiefs of the Disease called the Cow Pox. By George Lipscomb. 8vo. 3s.

A Treatise on Hernia Humoralis, or Swelled Testicle. To which are added, Remarks on the Opacity of the Cornea. By Thomas Luxmoore. 12mo. 2s.

A *Manual* of Anatomy and Physiology, reduced as much as possible to a tabular form, for the purpose of facilitating to Students the acquisition of those Sciences. By T. Luxmoore. 8vo. 8s. 6d. boards.

Outlines of the Origin and Progress of Galvanism; with its Application to Medicine. By W. Meade, M. D. 8vo. Dublin. 3s.

A Reply to the Anti-Vaccinists. By James Moore. 2s.

Remarks on Mr Birch's "Serious Reasons for uniformly Objecting to the Practice of Vaccination." By James Moore. 8vo. 1s.

An Examination into the Principles of what is called the Brunonian System. By Thomas Morrison. 4s.

Commentaries on the Lues Bovilla, or Cow Pox. By B. Mosely, M.D. 8vo.

Chirurgical Institutes. By H. St John Neale. 8vo. 6s.

The Cure of the Gout proposed on Rational Principles. By James Parkinson. 5s. 6d.

Admonitory Hints on the Use of Sea Bathing. By J. Peake. 1s. 6d.

A Practical Treatise on various Diseases of the Abdominal Viscera. By C. R. Pemberton, M.D. 8vo. 7s.

Notes on the West Indies. By G. Pinckard, M.D. 3 vols. 1l. 10s.

A Treatise on the Origin, Progress, and Treatment of Consumption. By John Reid, M.D. 7s. in boards.

An Answer to Dr Mosely, containing a Defence of Vaccination. By John Ring, Surgeon. 8vo. 6s. boards.

Cow Pox Inoculation no Security against Small Pox Infection. By William Rowley, M.D. 2s. 6d.

An Illustration of the Anatomy of the Human Ear, accompanied by Views of that Organ, accurately Drawn, of the Natural Size, from a Series of Dissections; to which is added, a Treatise on its Diseases, the Causes of Deafness, and the proper Treatment. By J. C. Saunders. Folio. 1l. 5s.

Observations and Experiments on the Digestive Powers of the Bile in Animals. By Eaglesfield Smith. 8vo. 3s.

Remarks on the Report of M. Chaptal to the Consuls of the former Government of France; with an Examination of the claim of M. Guyton de Morveau to the Discovery of the Power of the Mineral Acid Gas on Contagion. By J. Carmichael Smyth, M.D. 8vo. 1s. 6d.

An Introduction to Botany. By James Lee. A New Edition, corrected and revised by Charles Stewart. 8vo. Edinburgh, 1806.

A Practical Treatise on the Diseases of the Stomach, and of Digestion. By Arthur Daniel Stone, M.D. 8vo. 6s. boards.

A Practical Account of a Remittent Fever frequently occurring among the Troops in this Climate. By Thomas Sutton, M.D. 8vo. 2s.

Commentaries on the Treatment of Scirrhi and Cancer, from the earliest period to the present time; for the purpose of pointing out and establishing a Specific for those Diseases on Rational Scientific Principles. By William Thomas. 8vo. 3s.

Vaccinæ Vindicia; a Vindication of the Cow Pock. By Robert John Thornton, M.D. 1s. 6d.

The Naval Surgeon. By W. Turnbull, A.M. 8vo. 9s. 6d.

An Analysis of the Malvern Waters. By A, Philips Wilson, M.D. F.R.S. Edin. 8vo. 2s. 6d. boards.

Observations on the Use and Abuse of Mercury. By ditto. 8vo. 1s.

An Encyclopedia of Surgery, &c. By J. J. Watts. 8vo. 8s.

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